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ABSTRACT

The purpose of this study was to determine the effectiveness of parents as change agents in an ongoing Head Start program. Subjects were 72 rural white disadvantaged and advantaged children and their parents who were assigned to three treatment groups: developmental language, structured language, and placebo (workshop). Mothers met in 12 weekly 2-hour instructional sessions with teachers, using specific materials developed in teacher-directed workshops. (These meterials were not used in the Head Start program during the experimental period.) Pre- and posttests on a variety of measuring instruments evaluated children's intellectual, linguistic and self concept performance. Also evaluated was the quality of mother-child interaction and the mother's storytelling ability. Results of the study support the major hypotheses which predicted improvement in language performance, intellectual performance, self concept development, and mother child interaction, as a result of a differentiated parent education language program. No program approach was clearly superior but mothers in the specific content oriented intervention program increased their own verbal and linguistic skills as well as the quality of interaction with their children. Children whose parents work with them appear to have a learning advantage. Appendixes comprise more than 1/3 of the document. (NH)

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Head Start Evaluation and Research Center

Experimental Program Report
November 1969

MICHIGAN STATE UNIVERSITY
COLLEGE OF HOME ECONOMICS
in conjunction with the
MERRILL-PALMER INSTITUTE

PARENTS AS PRIMARY CHANGE AGENTS IN AN EXPERIMENTAL HEAD START PROGRAM OF LANGUAGE INTERVENTION

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in cooperation with the
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PARENTS AS PRIMARY CHANGE AGENTS
An Experimental Head Start Program of Language Intervention

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PREFACE

In the spring of 1967 an invitation was extended to a limited number of full year Head Start programs throughout the country to submit proposals of an innovative and experimental nature for the next funding year. These proposals were to be planned irrespective of Head Start guideline limitations. No additional program funds were offered but limited research funds were to be made available.

The following study is the direct result of this invitation to the Elkton-Pigeon-Bay Port Head Start program. Due to the untiring efforts of Mr. Jack Newton, the Director of this program, a proposal was developed in conjunction with the Michigan State Head Start Evaluation and Research Center and eventually supported.

The authors of this research report bear full responsibility for any conceptual and technical shortcomings inherent within it. All credits for this experimental effort, however, must go to the professionals in the Elkton-Pigeon-Bay Port schools who made it a reality; to superintendent James A. Matteson, without whose confirmed support this project could not have been completed; to Mr. Stanley Bauman and Mr. Etral Miller, whose efforts in aiding the implementation of the program within their schools were indeed exceptional; to the teachers Mrs. Francis Beech, Mrs. Peg Bellela, Mrs. Hazel Chalou, Mrs. Margaret Taylor, Mrs. Ellen Wolford, and Mrs. Katherine Zurakowski who gave so much of themselves in carrying out the study, and to the examiners Mr. Allen Tenant, Mr. Richard Krager, and Mr. Donald Teeple, without whose extra efforts the

measurements could not have been accomplished with the limited budget available.

Particular credit must be extended to Mr. Jack Newton for his continued indefatigable efforts in initiating the project, aiding the research and programmatic team and expediting in every way the efforts of all involved. Two of the authors wish also to acknowledge the outstanding efforts of Judy Kuipers in directing the experimental programs.

We would also like to acknowledge the aid of other staff members within the Head Start Evaluation and Research Center, particularly Larry Lezotte, Bill Brown, Jo Lynn Cunningham and Chris Walter.

Many other people within the Elkton-Pigeon-Bay Port public schools and the Thumb Area Community Action program also participated in various stages of the project. Particular appreciation is extended the Head Start aides whose able assistance in both programs and assessment was most important.

Finally we wish to thank the families of the Elkton-Pigeon-Bay Port communities who participated in this study and who provided the information on which it is based.

Robert Boger
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CHAPTER I

INTRODUCTION

Head Start has been aware from its inception of the importance of significant adults as the primary agents of change in the lives of young children. The press of evolving events, recent research and community concern, however, has heightened this awareness and made parent oriented programming a critical operational goal for pre-school intervention efforts. The work of Hess and Shipman (1966), Gordon (1968), Gray (1968), Karnes (1968), Dunham (1968), and Weikart (1967) provide but part of the pressing evidence that indicates parents are indeed critical agents for child change. This reality, although never questioned, has now been transformed into programmatic action by efforts such as those mentioned above. The parent training model demonstrated in this project is intended to be one further step in the development of parent oriented pre-school programs.

The purpose of this project was to develop a program, including content units, training methods, and materials that would aid pre-school teachers in preparing the mothers of the children in their classes to carry out a home based program of language training for their children. The need for a program in which professionals educate mothers to more effectively interact with their preschool children in the home is evident. The question of what educational procedures, however, could best achieve this end and what content should be included in such education remain to be answered.

The Importance of the Study

The plethora of recent research studies in the area of the culturally disadvantaged reveals many measurable differences between the advantaged and the disadvantaged child. They typically have found that the characteristics present in the social environment of the disadvantaged child have adverse effects on the development of intelligence, perceptual habits, motivation, language development and self concept. In Deutsch's now much quoted work (1964), it is stated that language development is perhaps the best indication of environment:

> . . . language is the primary avenue for communication, absorption, interpretation of the environment, but it also reflects highly accultured styles of thought and ideational modes for solving and not solving problems.

Styles of communication in the disadvantaged home are found to differ significantly from that of the advantaged home. John (1963) notes that feedback, as well as adult-child dialogue, occurs with a much lower frequency in the disadvantaged home. Hess and Shipman (1965) further substantiated this fact in their studies which reveal that the lower class mothers use more imperative control whereas middle class mothers use subjective-personal or cognitive-rational methods.

Bernstein (1961) describes the language patterns of the disadvantaged as fragmentary and informal to the extent that the child is denied the verbal parameters necessary to develop normative labeling and identification of his environment. Hess (1965) found in a problem-solving situation the lower class mother used fewer words when explaining an event to her child, fewer abstract words, fewer statements of personal orientation, and offered less help.

If cultural effects on the intellectual functioning are as Bruner (1965) states, "from the outside in," then the techniques by which this process can be influenced through parental practice are certainly an area of legitimate concern. Kagan and Moss (1958) state that there are definite critical periods in the child's language development during which parental practices drastically affect later development. Bloom (1965) concludes after an extensive review of longitudinal studies from the past forty years, that 50 per cent of the intelligence can be accounted for by age four.

Intervention in the preschool years of the culturally disadvantaged child is necessary to deter the cumulative effect of this style of life. Bereiter and Englemen (1966) have produced significant change in intelligence test scores through a structural language program. Weikart (1967) and Levenstein (1968) have been instrumental in the training of mothers by professionals in child stimulation. Both results show mothers can be educated for this role. Karnes _et_ _al_ (1968) developed a training program for mothers to work with their four year olds in the homes. Results showed significant gains in language development and general intelligence over a control group which was engaged in no training.

To summarize, in most American families, the mother is the major socializing agent for her preschool child. Consequently, she continually functions as a teacher in their daily interactions, whether or not she is aware of her teaching role. Much of the implicit language, conceptual, and social-emotional learning is conveyed by communication patterns the child receives from his mother.

Differences among mothers in the way they teach may not only affect the degree to which the children learn the intended message or meaning but also affect their child's motivation in the learning situation, the kinds of learning habits he develops, and his view of himself as a successful learner.

While Hess and Shipman, Bernstein and others have provided the necessary evidence for verification of these phenomena little has been done to formulate and test specific methods and techniques that lead to meaningful parent education. Indeed, the failure of certain parent education programs to spill over significantly into the child's school performance may be due to a failure to plan the content of the parent programs in a systematic and intensive fashion.

This study attempted to compare two language training approaches with placebo control classes. Since other aspects of the study involved the inclusion of children from families whose incomes were above the poverty guidelines of Head Start (so called non-eligible or advantaged) this eligible/non-eligible dimension was also included as a primary independent variable.

Background of Experimental Programs

The Elkton-Pigeon-Bay Port School District conducted a summer Head Start program during the summer of 1965. They have operated a full year Head Start program during the past three years. The school district, located in the "thumb" area of the eastern part of Michigan, covers an area of 255 square miles. Three villages, Elkton, Pigeon, and Bay Port, are located within the school district. The community is primarily rural, with a limited amount of light industry. The Bay Port area is particularly depressed due to a radical decline in the fishing industry which has been one of the main economic bases of the community.

During the 1967-68 school year, the Head Start program in the district enrolled 104 children, including three, four and five year olds. These children were in six classes with six teachers and six teacher's aides. Although the Head Start Program in the Elkton-Pigeon-Bay Port area has provided services in the community through its preschool program as well as a parent program, it has, nevertheless, had a great deal of difficulty in attaining community acceptance.

Due to the rural nature of the area, many families border on the poverty line (maximal family income allowable), as set by the Head Start guidelines, but do not fall below it, and therefore are not eligible to enroll their children in Head Start. Seasonal changes in crop productivity can result in fluctuation above or below this line from year to year. Because of their isolation from the mainstream of American life, many of these ineligible children who come from families above the poverty line are clearly in need of the services of the Head Start program. One

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tertiary objective of this study was to shed further light on the nature of "disadvantagement" in children from rural isolated communities such as this one. A program of increased parental participation and involvement was projected as a meaningful change agent both from the standpoint of increasing program effectiveness as well as changing overall community attitudes toward the program.

Assumptions Underlying Parent Education Program

1. Parents can learn specific methods, techniques, and skills to improve their childrearing skills.

2. Parents are capable of absorbing and implementing much of the accumulated knowledge concerning child development and learning, if it is presented to them in an appropriate manner.

3. An atmosphere of respect for the dignity and integrity of the parent must permeate the group experience in order for change in their own childrearing model to take place.

4. The parent's previous experience and perception of himself plays a direct role in his family interaction and his or her effectiveness in the early development of the child.

5. Experiences which help parents to become more aware of their own ability to relate to their children are most beneficial and critical in bringing about positive change in parent child interactions.

6. Information concerning the availability and function of community resources will enable parents to make greater use of these resources.

Assumptions Underlying the Child's Development

1. The preschool years are critical to the child's developing intellectual abilities, language skills, and conceptual skills.

2. The parents (real or surrogate) are the primary change agents in the life of the preschool child.

3. The rate, quality, and quantity of growth and development is unique for each child regardless of socioeconomic background.

4. Continuity between the child's home experiences and school experiences can be fostered through meaningful parent participation in the Head Start program.

Definitions

Disadvantaged. Various definitions of the "disadvantaged" have been proposed and many terms used to refer to them. The terms, "culturally deprived", "educationally disadvantaged or retarded", "underprivileged", "third-world persons" are all found in current literature.

It should be reiterated at this point that the disadvantaged are a heterogeneous group, not homogeneous as many programs often indicate. There still is little knowledge (Boger and Ambron, 1968) about the etiology of disadvantagement or what the term means for specific subgroups of disadvantaged children.

Disadvantaged children in this study all met 1968-69 O.E.O. Head Start guideline eligibility (i.e., family income for a family of four of $3000 or less). Accompanying this condition in most cases was 1) inadequate housing for the size of the family in terms of space and facility, and 2) rural isolation in terms of housing location.

Language Training. Language training in this study refers to helping the mother and the child to:

1. Use more words.
2. Speak in complete sentences.
3. Ask specific questions.
4. Correct their own mistakes.
5. Understand selected basic concepts* and to use words to explain their thinking.

*Basic concepts referred to include shape, color, simple categorization, etc.

The Developmental Model. The developmental approach emphasizes that much of the learning in early childhood is spontaneous and comes to the child in many ways. It is not necessarily sequential. It cannot always be carefully structured and ordered. This learning takes place long before language comes into existence and remains.

Physical movement and life experiences provide the first vocabulary for the child. Seeing, touching, tasting, smelling, and manipulating tell him what the world is like. The crucial modality of the young child is play behavior. To the child, play is essentially a research activity or an internal transactional process. It is free because the child's activity is still tentative and uncommitted. It is capable of exploration, revision, renunciation and replacement. In play the child can manipulate objects, events and even people with less restriction than that imposed on adults. Therefore, play provides not only a means for practicing, consolidating, and assimilating what one knows, but provides an opportunity to challenge or revise the knowledge.

All activity previously mentioned implies a thoughtfully prepared environment--with space, freedom, and challenging materials to explore and experiment with. Further, it implies that mother and teacher understand how patterns of thought and commensurate language abilities develop in the young child. This is, of course, the basis for this specific developmental approach.

The Structured Model. The structured model as employed in this study includes patterns, some of which serve the function of labeling, others of describing, explaining, or questioning.

The formal part of the program is the language lesson. Language lessons are for the main part, adapted from the University of Hawaii Language Program (Loveless and Kelly, 1968). Selected patterns are introduced by direct teaching, practiced in a specific sequence, and made meaningful by the use of related materials and experiences. The purpose of the language lesson is to provide the kind of experience that allows the children to learn efficiently. It enables the mother to expose the child to specific material and keep track of daily progress in a systematic manner.

It is not only a formal situation, but also one that allows children experiences for learning and practicing language skills. Semi-structured and informal activities provide opportunities for language practice.

It is important for language skills to be transferrable to situations outside the language lesson. Although it is not always necessary to speak in complete sentences, at times it is important to be able to call upon a precise code.

Intellectual Performance. Intellectual performance of the children in this study will be defined as performance as measured by the Wechsler Preschool and Primary Scale of Intelligence.

Language Performance. Language performance of the children in this study shall be defined as performance on the subtests of the Illinois Test of Psycholinguistic Abilities and the verbal subtests of the Wechsler Preschool and Primary Scale of Intelligence. Mother's language performance is defined as performance on the MSU Tell-A-Story Test.

Mother-Child Interaction. Mother-child interaction is viewed as the total communicative process existing between mother and child. However, due to the limitations of measurement techniques, language and maternal affect will be the major criteria as defined in this study. Specific attributes of these dimensions are measured by the Hess-Shipman Mother Child Interaction.

Self-Concept. Brown (1966) defines self-concept as, "a cognitive construction of the organism, which is in certain ways, identified with the organism." In this study self-concept will be designated as the child's concepts or cognitive construction of his total self in relation to the significant persons that surround him, as measured by the Experimental MSU Self-Social Constructs Test.

Purpose of the Study

The study had three major goals. The first was to gain further leverage in the issue of whether or not parents could be involved as change agents in a specific program of educational intervention. The second involved the comparison of two approaches toward such a parent-as-change-agent model and to determine if a specific parent involvement effort could affect the community's attitude toward the Head Start program. The third was to specifically answer the following questions.

1. Does specific parent training reciprocally effect the child's performance on critical cognitive and affective dimensions?
    a) Will children whose mothers received specific training show a greater increase in performance from pre-to-post testing on general ability, language facilitation, and self-concept than children whose mothers received no training?
    b) Will children whose mothers received specific training show comparable gains on the above stated criteria with children whose mothers received no training?
    c) Is there a significant difference on the critical dimensions between children whose mothers were in the two

experimental treatments and whose mothers were in the placebo treatment?

   d) Is there a significant difference between children whose mothers received the developmental treatment and children whose mothers received the structured treatment on the critical dimensions?

2. Does specific parent training effect the mother's interactions with her child?

   a) Did mothers in the experimental treatments interact quantitatively and qualitatively differently from mothers who received no training?

   b) Do mothers' interactions with their children in the developmental and structured groups significantly differ from mothers in the placebo group?

   c) Do mothers' interactions with their children in the developmental treatment differ from those of mothers in the structured treatment?

3. Does parental involvement in a short-term parent training program effect positive change in a community's acceptance of a Head Start program?

The purpose of focusing upon language training in the Head Start parental participation program was to provide opportunity for cognitively oriented parent-child interaction that would imply a potential for positive impact on the child's abilities critical to later school performance, i.e. language, while increasing parent involvement in the program through teacher-parent efforts in areas of specific content.

CHAPTER II

REVIEW OF LITERATURE

It has been well established that the preschool years are critical ones to the growing, developing child. Bloom's (1964) analysis of the stability and variability in the development of certain characteristics from infancy to maturity--physical factors, intelligence, scholastic achievement, interests, attitudes, and personality--underscores this critical influence.

In order to identify and explain this stability and change, Bloom (1964) carefully surveyed data from over one thousand longitudinal studies. In addition to undercovering countless support for the idea of the salience of early environment, he also mustered evidence that indicates that any given characteristic has its greatest potential for change during the period of its most rapid growth. Since the early years are periods of most rapid growth for the child's developing intelligence, language abilities, and the foundations of self-concept, the home environment exerts tremendous influence on these criteria.

Bloom (1964) continues with a description of three factors which affect the development of general intelligence: "the stimulation provided in the environment for verbal development;" "the extent to which affection and reward are related to verbal development;" and "the encouragement of active interaction with problems, exploration of the environment and the learning of new skills."

The child's family structures the initial environment as delineated by Bloom. Barring congenital deficiencies, all babies come into this world with certain positive physical, social, emotional and intellectual potentialities. Indeed, the definition of intelligence has been established by Bloom as a product of the interaction of these potentialities with the environment. While there are definite differences in the manner in which lower income and middle-upper income parents structure their child's environment, it should be pointed out that often the differences reduce to the upper income parent providing wholesome food, warm clothing, creative playthings, lessons and trips. However, they pay little attention to the development of the child as an interesting competent personality. In this sense the "culturally disadvantaged" are viewed as "culturally different" with definite strengths, trying to avoid what Eisenberg (1963-1964) calls, "confusing difference with defect." Riessman's (1962) description of the disadvantaged family could well describe many of the rural children in this study.

"A degree of cooperativeness and mutual aid which extends beyond the nuclear family typical of the middle class; collective group values, rather than individualistic ones; more genuine egalitarian values and less susceptibility to consideration of status and prestige; freedom from family overprotection and more readiness to accept responsibility for family chores; superior physical coordination and skill. In line with Murphy's (1961) and Schachtel's (1967) suggestions, then research should concentrate on locating the means for releasing further potentialities.

The review of the following research provides few answers, but offers stimulating and provocative findings that challenge and facilitate existing educational programs, and hopefully, foster the development of new programs.

Effect of Early Experience on the Development of Intelligence, Language Learning, and Self Concept

Klineberg's (1963) review of studies of the relationship between intelligence and environment, and studies by Deutsch (1963) and Brunner (1965) concluded that there is a "cumulative deficit" in disadvantaged environments. These researchers state that by the age of six many socially disadvantaged youngsters are one year retarded in language, reading readiness, and quantitative ability. By the third grade, there is over two years retardation; by sixth grade, over three years; and by the end of eighth grade about five years.

One theory on the nature of this deficit defines cultural deprivation as sensory deprivation. That is, the child is considered deprived because he has failed to receive the sensory stimulation necessary for cognitive development. According to this theory, a compensatory program must concentrate on the development of perceptual ability and sensori-motor skills. (Deutsch, 1963). However, there is little evidence that the culturally deprived fail to receive adequate stimulation for normal learning. Hunt's studies (1964) of children under two indicate few, if any, differences in sensory motor development since overcrowded conditions have literally bombarded them with stimuli and organisms are known to seek optimal stimulation given the opportunity. The theoretical issue is whether concrete pre-verbal experience is the crucial factor in the development of academic aptitude. Hunt, following Piaget, suggests that this is, in fact, the most accurate explanation.

Bereiter (1966) has compared the intellectual and academic performance of blind and deaf children. The blind represented a group who were experienced verbally but were severely limited in concrete experience and the deaf represented a group who had no verbal experience but full concrete experience. Blind children show little or no academic deficiency, whereas deaf children are about 10 points below normal in IQ. Deaf children are also retarded from two to five years throughout school. The socioeconomic level does not seem to affect the amount of deprivation. There is no differences when deaf children from lower-class homes are compared to children from upper-class homes, although the upper-class child presumably has a background more rich in concrete experiences. Bereiter, therefore, concludes that academic achievement is affected more by a lack of verbal experience than of concrete experience. (Bereiter and Engelman, 1966).

The cumulative deficit hypothesis, verbal experience deficient hypothesis, and the relationship between intelligence and learning ability seems to emphasize the critical effect of verbal learning on intelligence of children, and hold special implications for programs for disadvantaged children.

Many researchers have established intelligence test scores of disadvantaged urban children to be lower than non-disadvantaged children. Boger's research (1968) with rural children indicates that rural children tend to have lower measured intelligence scores, especially on tests which require speed and have many verbal items. The more isolated rural child was found to have a lower intelligence score and the test score did not necessarily reflect the child's learning ability.

In a study of slow learners, ages five through ten, in different socioeconomic and cultural groups, Jensen (1968) found that "in culturally non-deprived children, there is a good correlation between learning ability and IQ measured by tests. In culturally deprived children, IQ tells little about learning ability of the non-verbally mediated variety. Deprived children seem to be normal mediators in learning ability, but have failed to learn the verbal mediators that facilitate school learning."

Gordon (1965) in his summary of the research reports that deprivation in the early experiences of children results in weakness in auditory and visual discrimination, limited vocabulary range, restricted language usage with must communication through gestures and other nonverbal means, restriction in number of grammatical forms used, lack of familiarity with speech used by teachers, insufficient practice in attending to prolonged speech sequences, deficiencies in cognitive development, especially in abstract concepts and ability to generalize, lower IQ score averages including decreases after about age five and depression of intellectual function.

McCarthy (1954) summarized research on the disadvantaged thus, "There is considerable evidence in the literature to indicate that there exists a marked relationship between socioeconomic status of the family and the child's linguistic development." Bernstein (1961) describes the language patterns of working class youths as restricted, i.e. characterized by short, grammatically simple, often unfinished sentences with poor syntactical form; simple and repetitive use of conjunctions; little use of subordinate clauses; rigid and limited use of adjectives and adverbs; and infrequent use of impersonal pronouns. In contrast, the elaborated middle-class language is more complex and accurate in syntax, and the frequency and range of various parts of speech are both greater. Deutsch (1954) also has found signs of impoverishment in the language of the culturally deprived, mainly in its formal, abstract, and syntactical aspects.

Recent studies have attempted to determine what the differences are in the environment of many disadvantaged children. Deutsch (1964) pointed out the family environment and interaction as critical areas. Henry (1963) believes that the middle-class home contains a "hidden curriculum" which enables the child to deal appropriately with his first school experience. Strodtbeck (1964) further discusses the hidden curriculum and points out the fact that whereas the power structure of the middle-class home lends itself to a teaching situation, the power structure of the lower class home produces more imperatives in the adult-child exchange and lower class parents encounter much difficulty in teaching their children particular tasks. This research suggests that a definite discontinuity between the home and school environments exists for the disadvantaged child.

Hess and Shipman (1967) have studied mother-child relations and interaction in terms of "cognitive style." Disadvantaged mothers in their studies tended to teach their children passive compliance, giving them commands but few reasons. Overburdened and lacking the concept of developing their children's interests, these mothers merely cope with them in the attempt to minimize trouble. Demands are usually enforced with threats of punishment.

It can be concluded from relevant studies, that most disadvantaged children spend less time in direct interaction with their parents than do non-disadvantaged children; their parents do not have the skills or language to effectively foster language and cognitive development; and the children do not receive corrective feedback when they begin speaking. Raph (1965) concludes from her review of the research in language development of the disadvantaged that:

> "Research to date indicates that the process of language acquisition for socially disadvantaged children, in contrast to that of advantaged children, is more subject (a) to a lack of total vocal stimulation during infancy, (b) to a paucity

> of experiences in conversation with more verbally mature adults in the first three or four years of life, (c) to severe limitations in the opportunities to develop mature cognitive behavior, and (d) to the types of emotional encounters, which result in the restricting of the children's conceptual and verbal skills."

Olim, Hess and Shipman (1965) found that the child's ability to use abstractions was related to maternal language style and that the mother's tendency to use abstract language was more related to the child's abstract ability than the IQ of either mother or child. As stated previously, Jensen's conclusion was that the disadvantaged child has not learned the verbal mediators which facilitate school learning. Cynthia Deutsch (1965) believes that the educational implication of such findings is for greater emphasis on language teaching for disadvantaged children. These findings also seem to have implications for greater emphasis on parent involvement in the educational program.

Finally, child development theory proclaims the interrelatedness of the various aspects of growth in the child. It is not surprising, in the light of these other findings, that many of the disadvantaged children have a poor concept of self. Gordon's research summary (1968) states: "Ego development in disadvantaged children has been described as including low self-esteem, impaired patterns of personal-social organization, high incidence of behavioral disturbance and distorted interpersonal relationships."

Andrews (1966), Ausubel (1963), and Hawk (1967) have documented depressed self concepts and tendencies toward self depreciation. Further, an unfavorable self concept has been shown to be related to low aspirations and academic failures.

Clark (1965) in his poignant and provocative book, Dark Ghetto, recognized impairments brought upon by poor home environments, but clearly added that these are further ingrained by ineffective and inefficient teachers in our public schools. It is noteworthy that the majority of self concept studies have been done on disadvantaged black city children. Children in white, rural sub-cultures may manifest a very different kind of self concept.

Rationales for Language Oriented Programs

The need for intervention programs has definitely been established. Many educators and educational researchers agree that programmatic emphasis should be on language and cognitive skills. However, there is very little agreement as to the content, form, or time imvolved in increasing language quality and performances.

Three general approaches emerge from the literature. Brottman, (1968) in a recent Child Development Monograph, states that programs differ as to how they fall along a continuum of structuredness. (Brottman defines structure as, "the organization of a body of concepts which may be applied to provide a means of acquiring standard English language skills.") There seem to be three fairly clear-cut types of programs: the relatively unstructured program, the semi-structured or cognitive programs, and finally a highly structured or task-oriented programs.

The unstructured rationale is based on what many term the traditional developmental rationale where language and other cognitive skills are viewed as developing within the context of social-emotional development. Minuchin and Biber (1968), present this rationale. They perceive language as having two forms: a form of communication among human beings and a part of the development of symbolization and thought. It has what they term "a relationship aspect" and a "cognitive aspect". These two aspects develop language skills separately from this total experience would be antithetical to the natural development of the child. Language, then, is to be used and taught in all aspects of learning in addition to using special times of special materials designed to help teach special language skill.

Minuchin (1968) expresses the idea the the purposes and methods of the unstructured rationale require a complex system of assessment, with need for many kinds of criteria to judge progress. There is a definite concern for the evaluation of the process of thinking as well as accuracy of performance. Zimiles (1965) reinforces the dearth of these kinds of measurement techniques and the difficulties in developing them.

Many Head Start programs, cooperative programs, college laboratory programs as well as the Bank Street Program, Alpern's Community Project, and Strodtbeck's Program are all indicative of the unstructured rationale.

The second rationale, semi-structured or cognitive, provides a more structured and teacher-directed emphasis on specific cognitive and language learnings. This rationale accepts the cognitive, socio-emotional relationships in early learning and uses some of the traditional materials and activities. However, it is maintained that because a deficit is known to exist the traditional rationale is not the most efficacious. Weikart's Perry Project (1967) and Gotkins' (1968) structured game orientation are representative of this approach. They both support use of materials which represent a logical step-wise approach to language development. Language is taught with specific adult direction, yet in a game-like atmosphere. Improvement in performance on language tests such as the Illinois Test of Psycholinguistics are offered as evidence for the support of these programs.

Finally, at the other end of the continuum, lies the highly structured, Bereiter-Engleman "task oriented program." Bereiter (1966) states that enrichment programs are completely inadequate and that the deficit is so great that only intense pattern drill is efficient. The teacher leads the child in a fast alternating statement, question, and response pattern. Little emphasis is put on socio-emotional needs and top priority goes to cognitive and language skills. Basically, this approach is an adult-directed, deliberately planned sequential task approach to the three content areas: basic language training, reading, and arithmetic.

To summarize, the three rationales focus on agreement that disadvantaged children do have deficits in language ability, and that these deficits are related to competence in school situation. They all profess methods to help overcome the deficiencies. Stodolsky (1967) states:

> "It will eventually be necessary to execute detailed observational studies of children in home environments if one wants to arrive at valid hypothesis about the dynamics of development in interaction with environment. The dearth of naturalistic data about children's behavior and concomitant environmental circumstances is most regrettable."

The deficits have been pinpointed, the rationales stated, and pre-school intervention programs have been initiated. In the next section a review of the research that attempts to bring the home and school closer together is presented.

Parent Participation -- Education Programs

Bloom, Davis, and Hess (1965) reviewed various studies involving enriched nursery school programs for socially disadvantaged children and concluded that programs were more effective when parents served as part-time assistants and observers in these schools. Although many investigators have recommended parental education and participation, this important aspect of many preschool education programs has been minimal, nonexistent or inadequately planned.

The number of parent programs being reported in the literature has increased notably in recent years. Badger (1969) at the University of Illinois describes the first phase of a two-year exploratory study aimed at teaching socially disadvantaged mothers to stimulate the intellectual development of their infants (1-2 years of age). Twenty mothers, met weekly for two hours during a seven month period. The mothers were divided into two groups in order to facilitate discussion and effect attitude change through the mothers' interaction with each other. A sequential program of educational toys and materials as well as instruction in principles of teaching (emphasizing positive reinforcement) were provided for the mothers. Home visits provided the professional help in meeting the needs of both the infant and the mother as well as corrective feedback on the principles of teaching presented in the meetings. Subjective evaluation of the first year's results suggest these programs aid in fostering dignity and positive self concept in the mothers involved and can be an effective method of preventing learning deficits in children.

Gordon (1968) reports the effective use of para-professionals in training mothers and infants in the home. Two controls -- a group receiving visits without training procedures and a group receiving no visits or training -- were implemented with infants from three months to one year in age. Results of tests at the age of one indicated that infants in the experimental group excelled infants in both control groups on tasks from the training series as well as relevant dimensions of a developmental scale. The placebo and pure control groups did not differ significantly from each other on these tests.

Dunham (1968) in Project Know-How at Florida State University involved mothers as assistants in a class program using a center for preschool training for ages one to six. The mothers are employed at the center and the focus of their training is on "homemaking skills" which provide more attention and stimulation for their children.

Schaefer's (1965) tutorial studies involved children from fifteen months to three years in a daily home visitation program in which college students were trained to emphasize verbal stimulation of the child. These results indicate that tutoring does make a significant difference in early verbal development in spite of repeated observations of extreme deprivation in the homes.

Caldwell (1967) at Syracuse University studied the effects of stimulation of infants from six months to three years in a day care setting. The focus was primarily on the child with little or no contact with the mother and frequency of adult-child interaction was controlled.

Results in socio-emotional as well as intellectual development seemed to indicate that day care could be a stimulating child-rearing method even for a very young child.

The work at the DARCEE Center at Peabody College is one of the more extensive current parent programs. Three treatment groups involving only four year olds were included in this project. Maximum impact includes both mother and child in a pre-school program. A curriculum group includes the more traditional child-only program.

A third group is a home visitor program in which mother and child are trained with the mother participating in a follow up during the week. DARCEE programs include in-service-training for participating mothers, training methods for more effective motherhood, as well as training in classroom responsibilities. Results indicate that mothers can be trained, that the training enhances their self concept and their ability to mobilize themselves to make changes in family life. In addition there is considerable evidence of diffusion -- both to siblings and to friends and neighbors (including the control groups!). These results would indicate that given effective training and a good role model in the teacher, the mothers are eventually both ready and eager to assume an active role in their child's development.

Both Weikart and Levenstein are involved with programs in which trained professionals have visited homes to train the mother in child-stimulation, using four year olds. Preliminary results indicate that mothers can be trained in this role. Levenstein (1968) will now use the first mothers trained to train other mothers in place of professional workers.

Leler (1967) has implemented an enriched preschool curriculum for socially disadvantaged children and involved parents in a weekly participation-education program to determine whether the child's language and intellectual skills are improved over children only minimally involved.

Socially disadvantaged families with children approximately three years of age (eligible to enter kindergarten in September, 1968) were selected on the basis of socio-economic status (receiving welfare aid) and living in an area having a high proportion of low income and minority group families. A social worker visited the mothers to determine their willingness to enter a parent participation preschool program. Only those families in which the mothers indicated such willingness were enrolled in order to control for bias among the experimental groups. The research design involved two groups of about 25 children each. There was a stratified random assignment of the children into the two groups on the basis of socio-economic status, race, education of the mother, presence of the father in the home, and the sex, birth order, and pre-test results of the child.

All of the children were enrolled in a preschool program with an enriched curriculum, especially in language activities. There was a morning session and an afternoon session, each conducted by two teachers assisted by a teacher aide. In order to keep the environment for the two groups of children as similar as possible, the morning program served half of the children from each of the following two groups and the afternoon program served the other half of the two groups.

Group I. Intensive parent-participation group. The mothers of the children in this group are expected to participate in the preschool program for three hours each week and attend a weekly parent education class.

Group II. Minimal parent-participation group. The mothers of the children in this group are encouraged to visit the preschool program occasionally (4-6 times a year) and expected to attend a monthly parent education class.

Home visits by the teachers were kept equal for the two groups. The parent education classes focus on child behavior and development, ways the parents can help in the education of the child, family relationships, and self-help planning. The program will be conducted for two years (9 months each year). Tests of language and intellectual development such as the Peabody Picture Vocabulary Test and the Stanford Binet, Form L-M, will be used as pre- and post-tests. If possible, older and younger siblings will be tested also to compare diffusion effects, and pre- and post-measures will be made of parents' attitudes to compare possible changes.

In a mimeographed report, the Harrisburg, Pennsylvania Primary Education Project (1966) has developed a parent education program based on remediating of ITPA diagnosed language weaknesses at home.

The highly structured Bereiter-Engleman Language Program (1968) at Illinois is currently initiating parent meetings to help parents continue the language curriculum at home.

Karnes (1968) working with socially disadvantaged mothers and children, investigated the effects of a short term training program for mothers as reflected in the intellectual and linguistic development of their children. Fifteen pairs of disadvantaged preschool children were matched on appropriate variables. Neither experimental nor control subjects were enrolled in a pre-school, nor were control mothers enrolled in a training program. During a weekly two hour period mothers of the experimental children made instructional materials and learned methods for using them with their children in the home. Children of mothers involved in the training program manifested significantly greater gains than the control children on measured intelligence and language skills.

Loveless and Kelly (1968), in conjunction with the University of Hawaii Head Start Evaluation and Research Center, have developed a highly structured sequential language curriculum for the preschool child. Doris Crowell directs a parent program concurrently. Parents are presented with structured materials and techniques to foster the child's language development in the home. Statistical results are as yet unavailable.

Concerns which are emphasized repeatedly in these reports include the child behaviors that disadvantaged mothers reward and do not reward. It is clear that disadvantaged children are most often,"rewarded for passivity" and receive little positive reinforcement for language and assertive behavior. In encouraging interaction between mother and child, the goals of assisting the mother to function with positive reinforcement of verbal behavior with interaction which adds information, encourages reflection and a variety of responses through the request of and response to it, are mentioned in contrast to restricted orders found before education.

The variety of studies reported indicate that early language deprivation, including inadequate home language and control methods for verbal and cognitive skill development, is a critical deficiency resulting from poverty. Training programs show that given a qualified program, children can be educated in either group or home settings. In addition, efforts to use mothers in both home and group settings to assist in groups and/or apply new methods at home have shown considerable promise.

Summary

This chapter has pointed to the importance of early experience (primarily that experience provided by the family) for the child's developing intelligence, language abilities, and self concept. These abilities are closely related to later success in the school setting.

In reference to intelligence, socially disadvantaged children (among them rural children), do not perform as well as advantaged children on standard intelligence tests. However, analyzing these studies more closely, either by social group and ethnic group membership, or on specific mental capabilities, the research loses much significance. That is, the significance does not appear in social disadvantagement as much as in other factors.

In terms of school achievement, the "cumulative deficit" hypothesis has been pointed out. The few longitudinal studies of achievement reflect the socially disadvantaged child's achievement pattern as one of deceleration as he moves through the current school system. As Stodolosky and Lesser (1964) state, "when intelligence test data and early achievement data are combined, we have a predictor's paradise, but an abysmal prognosis for most children who enter the school system from disadvantaged backgrounds." Certainly, this indictment of the ability to predict school failure can become a challenge to the schools to specifically engage in correcting this pitiful situation.

Many school intervention programs are evident. However, there is increasing interest in parent education programs that would enhance home-school communication and cooperation. Research seems to indicate that child development education with an emphasis on language activities may be beneficial.

In the socially disadvantaged home, there seems to be a lack of feedback to reward and develop the child's language patterns fully. As language proceeds, not only feedback, in the sense of initial responses to the child's language, but dialogue (verbal interaction) becomes a critical factor.

Characteristics of the environment and family style tend to mitigate against elaborate verbal and attentive relationships between family members.

Clearly, socially disadvantaged children have special deficits and problems. The research indicated in the Rationale section indicates a good deal of groping and searching for new procedures, materials, and techniques to use with these children.

Education programs can help parents become aware of how their young child is beginning to know his environment, and learn some principles, techniques, and activities to facilitate this process. The limited research on this type of program emphasizes infant teaching in the home, use of para-professionals, and programs of a more highly structured nature. Chapter III includes a discussion of the population, procedures and methods of data collection used in this parent education study.

CHAPTER III

PROCEDURES

Development of Teaching Units

Several necessary developmental activities were undertaken prior to the experimental phase in this study. These activities included the development of the teaching units for the experimental treatments, development of an appropriate self-concept battery, development of an appropriate measure of mother's quantitative interaction with her child.

Thirty-six teaching units were developed for the experimental phase of the study: twelve for each of the two experimental language programs and twelve for the placebo group.

For each unit, background information was provided for the teachers. This information included an explanation of the content including its purposes, any unique features of the lesson plan, an explanation of difficult concepts, and any general teaching techniques called for in the lesson plan. Each lesson plan included a purpose statement, a list of materials to be used, and procedures to be followed. Examples of these lessons are given in Appendices A,B,C.

The experimental teaching units were based on information obtained through professional consultation, information in the literature, classroom observation, discussions with teachers, and past experiences of the MSU Head Start Evaluation and Research Staff.

Basic considerations in the developmental treatment were: 1) that learning in early childhood is spontaneous and comes to the child in many ways, 2) that the crucial modality of the young child is play behavior, 3) that the child must be encouraged to operate on his environment and relate these experiences in qualitative ideas, and 4) that the mother must provide experiences and an opportunity for the child to relate to her, as well as an appropriate model in language behavior.

Structured teaching units were primarily adapted from the University of Hawaii Preschool Language Curriculum developed by Phyllis Loveless and Karen Kelly at the University of Hawaii Head Start Evaluation and Research Center. Consultation with Doris Crowell of the University of Hawaii staff provided background and training necessary to implement such a training program. In addition, consultation with Dr. Merle Karnes, director of the Colonel Wolfe Preschool, University of Illinois, provided further insight into the rationale and implementation of a structured language program.

The structured method teaches the child a set of selected sentence patterns, some of which serve the function of labeling, others of describing, explaining or questioning.

The formal part of the program is the language lesson. Selected patterns are introduced by direct teaching, practiced in a specific sequence, and made meaningful by the use of related materials and experiences. The purpose of the language lesson is to provide the kind of experience that allows the child to learn efficiently. It enables the mother to expose every child to specific material and keep track of daily progress in a systematic manner.

It is not only a formal situation, however, that allows children experiences for learning and practicing language skills. Semi-structured and informal activities provide opportunities for language practice.

Placebo lessons were primarily adapted from traditional parent education programs referred to in the literature and which the parents and teachers involved suggested as being of interest. Resource persons from within the community and from the Family and Child Sciences Department at Michigan State University were utilized.

Head Start Eligible-Non-Head Start Eligible Dichotomy

An important aspect of this study was the requested waiver of OEO guidelines so that all four-year olds in the community might be included in the sample. Initially the planned design was to compare varying ratios of HS eligible and NHS eligible children in the sample classes. However, initial testing with the Wechsler Preschool and Primary Scale of Intelligence indicated little difference between the two groups in basic abilities. On the basis of these findings, the viability of testing a modeling behavior hypothesis as based on social class difference was interpreted to be lacking, and although a partial change score analysis based on HS eligibility vs. NHS eligibility was completed, this is not considered to be a central issue in this project.

Table 1 provides a breakdown of the population of the classes based on HS eligibility. The number of Head Start eligible and non-Head Start eligible children in a given class are dependent upon location of homes and patterns of transporting the children and could not be controlled experimentally.

TABLE 1.

Breakdown of Class Population by Head Start Eligibility

Class Population	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Total
Head Start Eligible	16	9	9	6	6	4	50
Non-Head Start Eligible	2	9	9	12	12	14	58
Total	18	18	18	18	18	18	108

Sample

The sample was drawn from the six Head Start classes in the Elkton-Pigeon-Bay Port School District. Each class consisted of eighteen children, primarily white and of rural background. Twelve children and their mothers were randomly selected for the testing sample. (Due to limitations of time and budgeting it was necessary to use less than the total population for testing.) However, all eighteen children and their mothers in each were involved in the training program. Table 2 shows the breakdown of class population by Head Start eligibility for the testing sample.

TABLE 2.

Breakdown of Class Population by Head Start Eligibility in Testing Sample

Class Population	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Total
Guideline Eligible	10	6	6	4	5	3	34
Non-Guideline Eligible	2	6	6	8	7	9	38
Total	12	12	12	12	12	12	72

Procedures

The six classes were randomly paired to obtain samples consistent with the proportion of guideline eligible and non-guideline eligible children in the total population. The pairs of classes were randomly assigned to the three treatment groups (see Table 3). The three treatments were: developmental language training (treatment 1), structured language training (treatment 2) and discussion workshop (placebo treatment). The placebo treatment attempted to deal with Hawthorne effects, while at the same time including all mothers, children and teachers in some type of "treatment" group to minimize any feelings of exclusion. A pure control including both guide eligible and non-guideline eligible children was unavailable; however, data for disadvantaged children from the 1967-1968 Elkton-Pigeon-Bay Port full year Head Start Program were utilized in this capacity. (See Tables 3 and 4)

TABLE 3.

Number of Guideline Eligible and Non-Guideline Eligible
Children in Each Training Group

Number of Children	Developmental	Structured	Placebo	Total
Guideline Eligible	15	15	20	50
Non-Guideline Eligible	21	21	16	58
Total	36	36	36	108

TABLE 4.

Number of Guideline Eligible and Non-Guideline Eligible Children
in Testing Sample by Treatment

Number of Children	Developmental	Structured	Placebo	Pure Control
Guideline Eligible	11	11	13	15
Non-Guideline Eligible	13	13	11	
Total	24	24	24	15

All three primary groups were treated as follows:

1. Each group of mothers met in twelve weekly two hour sessions with their children's teacher.
2. The general atmosphere was conceived to be one of parents and teachers working together to attain the goals in Head Start.
3. Training and instructions for each week's program were pro-

vided for the teachers each Monday by a professional staff member of the E&R Center.

4. Each teacher met with the trainer each Friday for an evaluation of that week's program.
5. The professional person involved in training was constant across all training groups in an attempt to minimize effects of trainer variability.
6. Follow-up home visits were made to provide materials to mothers unable to attend meetings.
7. Teachers refrained from direct use of materials developed for the training program in their own classroom programs.

Developmental Language Treatment

Specific materials and techniques developed for this treatment were designed to enhance the mother's awareness of the child's thought processes and language development. Suggestions for using the materials were demonstrated by the teachers. However, mothers were encouraged to implement their own ideas in the use of materials and were provided with these opportunities in role-playing and small group situations.

Activities utilized in this treatment included color games, flannel boards, dramatic play with puppets, lotto games, cooking activities, etc. (See Appendix A for sample lessons.) With each activity general instructions were given; however, each mother is encouraged to alter materials as necessary to maintain her child's interest level and attain the above stated objectives.

Structured Language Treatment

Mothers in the structured language treatment were presented with a specific repertoire of skills which they could apply in teaching situations to enhance their child's discriminative skills and concept acquisition. Materials and techniques to teach their children language structure were presented to the mothers. (See Table 5 for sequence of training.)

Materials constructed by mothers in the meetings were used in the home with the child in a very specific way. Emphasis on helping the child explain and discuss things in complete sentences and verbalize each thing he sees or does was made. Mothers were encouraged to reward this behavior with warm affectionate kinds of behavior.

Specific activities include color games, candyland, "Go Fish," lotto, puppets, flannel boards, etc. With each activity a specific set of instructions were given for the mother to follow. (See Appendix B).

Common Characteristics of the Two Experimental Treatments

1. Each mother was asked to spend at least 10 minutes a day working on the materials with her child.
2. Materials were kept in a bag provided to be used "in a special place" at a "special time" each day.
3. Mothers were asked to return an evaluation sheet each week stating the amount of time spent, tasks completed, and general comments.

TABLE 5

Sequential Levels of Language Development

LEVELS	LABELS	VERBS	DESCRIPTIONS	EXTENSIONS
I GREEN	Identity singular positive and not	Present progressive singular positive and not	Opposite words: big, long, straight, smooth Colors: red, blue Prepositions: on, under, in - singular	Additional vocabulary and verbs Use flashcards for opposite words, colors, prepositions
II PINK	Identity plural positive and not	Present progressive plural positive and not	Plural of Opposite words: big, long, straight, smooth Colors: red, blue Prepositions: on, under, in "I don't know"	Labels: more vocabulary (pl.) Verbs: more verbs (plural) Descriptions: Opposite words: wet, clean, soft, heavy, fat Prepositions: in front of, singular and plural
III WHITE	Categories: Animals Plants Buildings Vehicles Toys Pieces of clothing	Past of "to be" Past progressive singular and plural	Opposite pairs: big, long, straight, smooth "and"	Labels: Categories--tools, weapons, furniture, things to read Verbs: present progressive Add new verbs Descriptions: Opposites: dark, loud. tall cold, happy Colors: green, orange Prepositions: next to "Guessing"
IV YELLOW	Subject Pronouns	Simple past singular and plural	Same-Different "all"	Labels: "a" and "an" with nouns Numbers and letters, food, parts, children and adults Verbs: expanded forms: past tense Descriptions: Reversible "and" Opposite pairs: wet, clean, soft, heavy, fat Colors: purple, black, white, brown Preposition: between Questions
V BLUE	Materials: What Things Are Made Of	Infinitives Future singular and plural	Superlatives Comparatives	Labels: more plurals Object pronouns Verbs: Infinitive, Future Opposite pairs: dark, loud, cold, happy, tall "Or" "Different from" Colors: pink, gray, silver, gold
VI GOLD	Workers	Simple Present singular and plural	Polar Changes	Labels: fruit, vegetables, money Possessive pronouns, adjectives Verbs: simple present Other adjectives Irregular comparatives and superlatives Colors, light and dark Seriation, sequencing Deductions Miscellaneous

4. Agenda for meetings followed this pattern:

    7:00 - 7:20 Evaluation of previous week's material
    7:30 - 8:00 Developing instructional material
    8:00 - 8:20 Refreshments
    8:30 - 9:00 Discussion of use of materials
    Handouts

Placebo Treatment: Workshop Training

The placebo treatment was developed such that no definitive instructional program for parent interaction with their children was included, but which involved the same amount of teacher/parent meeting time. Specific objectives of the workshop training programs, which were of the general discussion type, were

1. To develop an appreciation of the value of education as a means by which parents and their children can progress and enjoy life more.
2. To develop an understanding of children's growth, development, and behavior.
3. To support and strengthen the positive attributes of parents.
4. To help parents utilize personal and community resources.
5. To help parents develop a sense of their own worth as individuals, parents and citizens.
6. To develop self-help activities of the parents through involvement in democratic processes, and
7. To strengthen family relationships through the above means.

Programs were developed to familiarize the mother with the school, the community and her own resources. (See Appendix C for sample programs.) Films, discussions and resource persons were presented with no instructions for the mother to interact with her child in the home. Most of the workshops were child-related, dealing with such topics as the value of play and play equipment, nutrition, guiding the young child, why children behave the way they do, and child health. The programs were presented for the mother alone, however, and no attempt was made to project specifics for use in her interaction with her Head Start child.

Instrumentation

A pre-post design was used with the following measurement approaches (See Appendix D for bibliographical data.):

1. Wechsler Preschool and Primary Scale of Intelligence (WPPSI)
2. Illinois Test of Psycholinguistic Abilities (ITPA)
3. Hess and Shipman Mother-Child Toy Sort and Block Design (1965)
4. Experimental Self-Concept-Social Constructs Measure (adaptation of Brown, Henderson-Ziller-Long, and Woolner techniques).

Mothers were evaluated on two measures (pre and post):

1. Hess-Shipman Mother-Child Interaction
2. Experimental Tell-A-Story Test (developed for use in this study).

Intelligence Scale. The Wechsler Pre-School and Primary Scale of Intelligence consists of a group of sub-tests, each of which when treated separately may be considered as providing individual ability scores. A composite measure of overall intellectual capacity as well as both performance and verbal scores are obtained on this instrument. Items are designed for the mental examination of the 4 to 6-1/2 year old child. (Wechsler, 1967) (See Table 6)

TABLE 6

WPPSI SUBTESTS

Sub-Tests	No. of items
Verbal:	
Information	23
Vocabulary	22
Arithmetic	20
Similarities	16
Comprehension	15
Sentences	13
Performance:	
Animal House	20
Picture Completion	23
Mazes	10
Geometric Design	10
Block Design	10

The standardization of the WPPSI was obtained using a stratified sampling plan to insure representative proportions of various subgroups within the population. Wechsler acknowledges a "minimal" bias in the test because it was impossible to follow true random selection methods. Instead, field examiners were required to select cases to fit several quota requirements, to make contact with parents of the children, and to obtain permission for testing. One may presume that parents to whom examiners have access and who give permission to test, tend, on the average, to be brighter and better educated than parents in general. The extent of this bias is believed to be small.

The standardization sample consisted of 1200 white and non-white children stratified according to age, sex, geographical region, urban-rural residence, color, and father's occupation.

The reliability-coefficients for all tests except animal house are odd-even correlations corrected by the Spearman-Brown formula. The split half technique was not deemed appropriate for estimating reliability of speed tests so the reliability for the animal house test was derived from test-retest data.

For verbal, performance and full scale IQ's, the reliability coefficients were estimated from the formula for the correlation between two sums of equally weighted scores.

Based on an N of 200 for each sub-test across age groups 4 - 6 1/2 years average reliability for each sub-test ranges from a low of .77 to a high of .87. Average reliability across age groups on the verbal IQ is .94, on performance IQ, .93, and full scale IQ, .96.

The standard error of measurement sub-tests across groups ranges from a low of .87 to a high of 1.87. On the 3 overall scores the average SE_m is 3.00.

Acceptable average intercorrelation of test scores are given for the 6 age groups. Stability coefficients on a test-retest study averaged .80 on sub-tests and .87 on overall, and there is a high correlation with other instruments desigaed to measure intelligence (Stanford-Binet, Peabody Picture Vocabulary Test, and the Pictorial Test of Intelligence).

Language Scale. The Illinois Test of Psycholinguistic Abilities is a recent test, the first edition coming out about 1961. It is generating much research and interest. As yet it is not in its final form. The past few years have been a time of trial and experimentation. This test is an attempt to assess and differentiate various aspects of language ability, or disability, depending upon one's point of view.

Osgood's model (1957) provides the underlying theoretical position of language acquisition and behavior upon which the test was developed. At the present time, the test is undergoing a certain amount of revision. It has been in the field on a more or less experimental basis and has generated a great deal of comment and research, with reference to the validity of the subtests, its diagnostic value, and the techniques of administration.

The ITPA tests three psycholinguistic processes. They are:

Decoding - the ability to obtain meaning from visual and auditory linguistic stimuli.

Association - the ability to manipulate linguistic symbols internally.

Encoding - ability to express ideas by words or gentures.

The norm group consisted of 1,100 children between the ages of 2-1/2 - 9 from Decatur, Illinois, public schools. Since the test was intended to differentiate language disabilities, a group of linguistically normal children was sought. No validity coefficients are given. Content validity is still under study. In general, each subtest is qualitatively homogeneous.

Two forms of reliability have been computed for the ITPA, internal consistency reliability and stability reliability. An internal consistency check was made to ensure that the questions in each subtest were homogeneous. The best consistency was found for subjects in the middle age ranges. A test-retest method with an intervening period of three months was used as well as a split-half check. Restricted stability coefficients and full range estimates of stability reliability for each subtest for each age range is available. Standard errors of measurements for each subtest for each age range are also available.

Mother-Child Interaction Tests. The Hess and Shipman Mother Child Interaction tests evolved from a research attempt at the University of Chicago Early Education Research Center to study differences in maternal teaching styles. (Hess & Shipman, 1966) See Appendix D. Mothers and children were brought to the laboratory where each mother was to teach the same content to her child. The teaching situations were structured so that information to be conveyed to the child was constant for all subjects, but each mother was free to use any means or techniques she desired in attempting to convey it.

The interactions revealed striking differences in the way mothers attempted to teach the same basic message or skill to their children and in their relative success in doing so. In attempting to account for these differences, a number of maternal teaching variables were examined including language (variety, organization, and relevance), motivation techniques (methods used in attempting to get the child to want to learn or to be prepared to learn), ability to interpret the child's responses, and success in giving appropriate feedback in reaction to these responses. Effects observed in the children were also measured and were analyzed in relationship to the various maternal variables. (Hess and Shipman, 1966)

Directions for the test and scoring procedures may be seen in Appendix D. Studies of construct validity were significant at the .01 level. This test was used in the Educational Testing Bureau's National Assessment Program. Specific reliability and validity coefficients are as yet unpublished. (Hess and Shipman, 1966)

Instrument Development

MSU Tell-A-Story Technique. No satisfactory instrument to measure the quantitative aspect of maternal communications with her child could be found and it was necessary, therefore, to develop such an instrument. This test was designed to measure quantity and quality of mother's output in a story telling situation. Mothers are asked to tell a story using a set of sequential pictures. The design attempted to simulate as close as possible a home-like mother-child interaction. A series of pictorial plates appropriate to the age of the children under study were selected. These plates implied a logical story sequence. Each mother and child was taken into a familiar room in the preschool building by the teacher aide and the mothers were instructed to "tell Susie about the pictures." The aide then turned on the tape recorder and left the room. No further instructions were given.

Ten pictures were used in the story telling session but it was decided, however, that a sampling of the mother's language would be sufficient for analysis. Accordingly, the total language output of the first three pictures was used in each case. The recorded tapes were transcribed for these three pictures and the language data analyzed using criteria suggested by Bernstein (1963) and Hess (1968).

The transcribed tapes were scored on the following criteria:

1) Total Number of Words for Each Picture
2) Total Number of Words for the Three Pictures
3) Syntax Index
4) Number of Questions Asked
5) Number of Incomplete Sentences
6) Number of Complete Sentences

Further instrument development procedures are progressing for this technique.

Self Concept Measures. As experimental battery of self concept and social construct measures was compiled for this study. The unavailability of an adequate self concept instrument necessitated the development of a new approach. Parts of the Brown IDS Self Concept Referents Test, Henderson, Long and Ziller's Children's Self Social Constructs Test, and Woolner's Pre-School Self Concept Picture Test were adapted for use in assessing these dimensions. (See Appendix D for bibliographic data). This was an attempt to gain a knowledge of the child's concept of himself, his perception of his mother's concept of him, and how he perceives himself in relation to significant others, (mother, father, teacher, peers). The combination of these tests could give measure on all three variables.

The Pre-School Self Concept Picture Test. The complete Woolner Test was used. It is designed to measure the child's concept of himself.

The Preschool Self-Concept Picture Test (Woolner, 1966) consists of ten plates with paired pictures on each plate. Culturally and developmentally orientated, the pictures represent personal characteristics which preschool children may commonly attribute to themselves. Two sets of pictures are provided: one for boys and one for girls. Pictured characteristics, according to Plate number are:

1. Dirty - Clean
2. Active - Passive
3. Aggressive - Nonaggressive
4. Afraid - Unafraid
5. Strong - Weak
6. Acceptance of male figure - Rejection of male figure
7. Unhappy - Happy
8. Group Rejection - Group Acceptance
9. Sharing - Not Sharing
10. Dependence - Independence

The picture characteristics represent ten positive and ten negative characteristics.

The rationale for selecting the characteristics which are depicted on the ten plates is related to the needs, concerns, characteristics and developmental tasks of middle-class kindergarten children, their parents, and teachers.

For six plates the positive and negative characteristics are identical for boys and girls, while on four plates sex differences are noted.

Depicted Characteristics

Positive		Negative	
Boys	Girls	Boys	Girls
Clean	Clean	Dirty	Dirty
Active	Passive	Passive	Active*
Aggressive	Nonaggressive	Nonaggressive	Aggressive*
Unafraid	Unafraid	Afraid	Afraid
Strong	Weak	Weak	Strong*
Like Male Figure	Like Male Figure	Dislike Male Figure	Dislike Male Figure
Happy	Happy	Sad	Sad
Group Acceptance	Group Acceptance	Group Rejection	Group Rejection
Sharing	Sharing	Not Sharing	Not Sharing
Independent	Independent	Dependent	Dependent*

*Sex difference

The Preschool Self-Concept Picture Test was first administered to a group of emotionally healthy preschool children and a group of emotionally disturbed preschoolers who attended Children's Guild, Inc., Baltimore, Maryland. The emotional stability of both groups was determined by a professional team composed of a psychologist, a psychiatrist, a social worker and a preschool teacher. Results of this administration of the PS-CPT indicated that emotionally healthy children viewed themselves differently then emotionally disturbed children. Healthy children saw themselves as having more positive characteristics than disturbed children. Congruence between self and ideal self-concept was 80% to 100% in the emotionally healthy group, whereas congruence between self and ideal self-concept was 20% to 00% in the disturbed group. One child, a five-year-old girl, who attended the preschool for emotionally healthy children, when tested, desponded as the children in the emotionally disturbed preschool did. The staff members of both schools were not informed of the results of the test. Some weeks after the test was administered, the teacher requested that the therapeutic preschool staff review the girl's record because she felt the child showed some symptoms of emotional disturbance.

To determine if preschool children viewed the picture in the same or similar context as the test designer, a group of middle-class four and five-year-old children, in an individual interview, were asked to describe each plate. Their responses were taped and tabulated. Except for one plate, unafraid, the children's descriptions of the plates agreed with the test designer's descriptions. Because of the children's responses to the unafraid and afraid plate, it was redrawn.

A study conducted at Memphis State University (Woolner, 1966) provide additional validity and reliability data. To determine the consistency of performance of Ps-CPT, one group of children received three exposures to the self-concept test and the three sets of scores were intercorrelated. All correlations found to be above .90 except for the correlations between Test 1 and Test 3 on ideal self-concept which was found to be .80. Although the correlation between Draw-A-Man Self-Concept Test and the PS-CPT was not significant (r = .21), it approached the .05 significant level (p = .232).

Brown-IDS Self Concept Referents Test. The Brown technique is designed to assess the self concepts of young (four to six-year olds) children using a photographic technique. The test attempts to measure the extent to which the child perceives his mother; his teacher; and friends as seeing him positively or negatively. For purposes of this study the child and mother perceptions were most pertinent, so these items were abstracted for the experimental form. (Brown, 1966) See Appendix D.

Brown indicates that this test minimizes the extent to which psychological interpretation must be imposed upon obtained responses, maximizes comparibility of responses between child in order to permit generalization, and tests directly the stability of responses over a specified period of time.

Thirty eight four-year-old lower class Negro subjects and 38 white upper middle class subjects of the same age were given the Brown IDS Self Concept Referents Test. A re-test was given three weeks later. Findings indicated a high level of reliability in the perceptions of self held by Negro and white children over a 3 week interval (.76 for white S's, and .71 for Negro S's).

Children's Social Self Construct Test. The self social symbols method was originated by Ziller who first used felt cutouts to study the self-perceptions of neuropsychiatric patients. From this beginning a number of forms of paper and pencil tests have been developed which provide non-verbal measures of self in relation to others. (Ziller, Henderson and Long, 1968).

In the test, the child is presented with a booklet containing a series of symbolic arrays in which circles and other figures represent the self and/or other persons of importance.

The child responds to each task by arranging these symbols, by selecting a circle to represent the self or some other person from among those presented, by drawing a circle to stand for himself or others or by pasting a gummed circle onto the page with the other symbols. From these arrangements, in which the child relates himself symbolically to a variety of social configurations, certain aspects of the person's conception of himself are inferred.

For the pre-school form of the test, studies revelaed split-half reliability coefficients corrected for length ranging from .48 to .85 with a median of .73 for eight measures among a sample of 98 four-year olds.

In an eighty two page paper entitled Manual For the Self-Social Symbols Method by Ziller, Henderson, and Long (1968), empirical evidence is presented to establish construct validity by making multiple comparisons in relation to the theoretical ideas of what was being measured. There are comparisons of: known groups, among tasks themselves and of the tasks to behavior in various situations. All findings reported were significant at the .05 level or better unless otherwise indicated.

Test Administration. All tests were administered on a pre-test - post-test basis. The WPPSI and the ITPA were administered by local psychometric diagnosticians. Testers received training on the WPPSI under the direction of David Wechsler. Training on the ITPA was in conjunction with the University of Illinois, but of a very limited nature.

The Hess and Shipman Mother-Child Test was administered by staff members of the MSU Head Start Evaluation and Research Center. The self concept measures were also administered by a MSU Head Start Evaluation coordinator and her staff.

All testers spent extensive time in the pre-school setting establishing adequate rapport with the children. The investigators spent nearly a month before the pre-testing began preparing teachers, children and mothers for the testing experience. Because of this gradual approach at establishing rapport only 2 of the 72 test children needed a supportive adult within the testing situation.

Data Analysis. Variables were submitted to a 2 x 3 Analysis of Variance Model. Computer Program, L.S. routine, (Analysis of Co-Variance and Analysis of Variance with Unequal Frequencies Permitted in the Cells), was used. In this procedure the post-test of each dependent variable was analyzed by analyses of co-variance, with the appropriate pre-test serving as a co-variate for the post-test. This procedure sets the initial group differences to zero in terms of post-test interpretation. The resulting analyses reflect the relative change of each group to one another. This does not allow a test for significant pre- to post-test mean scores across all groups. Therefore, group pre- to post-test mean scores were subtracted to obtain gain scores.

Scheffe's method of post hoc comparisons was used to evaluate comparisons among means of experimental groups that show significant differences. This method has advantages of simplicity, applicability to groups of unequal sizes, and suitability for any comparison.

Analysis of variance was also utilized in the comparison of the control group and treatment groups (1 x 4 model) for the dimensions of IQ and self-concept.

A multiple regression model was employed to further analyse selected maternal variables.

Scores obtained from all subjects on all instruments were coded using a system developed by the Michigan State University Head Start Evaluation and Research Center. The resulting data were analyzed through use of MSU CDC-3600 computer.

CHAPTER IV

ANALYSIS OF THE DATA

Presentation and Analysis of Data

The major purpose of this study was to determine the effects of two language oriented Head Start parent training programs on the child's (1) language facilitation, (2) other cognitive abilities, (3) self concept, as well as the quality and quantity of the mother's verbal interactions with her child. The data were analyzed using an analysis of co-variance (ANCOVA) model. Analysis by treatment (three) and Head Start guideline eligibility, (two) provided a three by two ANCOVA design. Significant and near significant interactions are discussed in detail. A probability level of $p \leq .05$ was used in interpreting the significance of results, while results having a probability level of $p \leq .10$ were discussed for their implications.

Predicting Intellectual Achievement

ANCOVA results of total scores and subtest scores of the WPPSI for each treatment group are presented in Table 7. Differences in full scale IQ scores between treatment groups had a chance probability $\leq .086$ with the mean score for the developmental treatment group being higher than for the structured and placebo treatment groups.

Performance Subscale. There were no significant differences between eligibility or treatment groups on the performance subscale. Table 7 presents ANCOVA results for the performance subtests. A meaningful eligibility effect ($p \leq .08$) was evidenced for the Block Design subtest with Head Start (HS) eligible children performing better than non-Head Start (NHS) eligible children.

An interaction effect was evidenced ($p \leq .09$) in the Maze subtest with the NHS eligible children doing significantly better than the HS eligible in the placebo treatment group but with no differences within the developmental and structured treatment groups.

An interaction effect was also evidenced on the Completion subtest. ($p \leq .10$) Observation of the data reveals that HS eligible children in the structured treatment group performed better than the NHS eligible. The reverse, however, was true in the placebo group where the NHS eligible performed better than the HS eligible. No appreciable difference between the HS eligible and NHS eligible children was evidenced in the developmental treatment group.

Verbal Subtests. No significant differences due to treatment or eligibility alone were established for the Verbal IQ subscale; however, a significant interaction was revealed. Post hoc Scheffe comparisons reveal a significant difference ($p \leq .05$) between NHS eligible and HS eligible children in the placebo treatment group but no significant differences between the NHS eligible and HS eligible children in the other two groups. Verbal subscale and subtest results can be examined in Table 7.

Analysis of co-variance on the Total Information subtest revealed a significant interaction effect at the .04 level of significance.

Scheffe's method of post hoc comparison indicated a significant

TABLE 7

WPPSI Analysis of Co-Variance (N-64)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
	Dependent Variable--Full Scale IQ Independent Variable--Treatment and Eligibility				
Eligibility	38.19899917	1	38.19899917	0.3925	0.533
Treatment	497.62341078	2	248.81170539	2.5566	0.086
Interaction	247.71685170	2	123.85842585	1.2727	0.288

TABLE 7 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Performance IQ Independent Variable--Treatment and Eligibility					
Eligibility	164.36602838	1	164.36602838	1.3163	0.256
Treatment	140.45723226	2	70.22861613	0.5624	0.573
Interaction	232.54008300	2	116.27004150	0.9311	0.400
Dependent Variable--Animal House Independent Variable--Treatment and Eligibility					
Eligibility	173.72860557	1	173.72860557	1.3093	0.257
Treatment	571.72621410	2	285.86310705	2.1544	0.125
Interaction	134.49300751	2	67.24650376	0.5068	0.605
Dependent Variable--Picture Completion Independent Variable--Treatment and Eligibility					
Eligibility	4.01641180	1	4.01641180	0.3781	0.541
Treatment	32.76836548	2	16.38418274	1.5424	0.223
Interaction	49.59640023	2	24.79820011	2.3346	0.106

TABLE 7 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Maze Independent Variable--Treatment Eligibility					
Eligibility	183.27901911	1	183.27901911	1.5870	0.213
Treatment	179.48987713	2	89.74493857	0.7771	0.465
Interaction	569.31970315	2	284.65985157	2.4649	0.094
Dependent Variable--Geometric Design Independent Variable--Treatment and Eligibility					
Eligibility	0.07805933	1	0.07805933	0.0098	0.921
Treatment	9.23548845	2	4.61774422	0.5812	0.563
Interaction	14.84045915	2	7.42022958	0.19339	0.399
Dependent Variable--Block Design Independent Variable--Treatment and Eligibility					
Eligibility	45.16607178	1	45.16607178	3.0213	0.088
Treatment	20.91521600	2	10.45760800	.6995	0.501
Interaction	38.68758470	2	19.34379235	1.2940	0.282

TABLE 7 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Arithmetic Independent Variables--Treatment and Eligibility					
Eligibility	0.39321662	1	0.39321662	9.0747	0.786
Treatment	3.80989413	2	9.90494706	0.3619	0.698
Interaction	46.1022709	2	23.05113550	4.3788	0.017
Dependent Variable--Verbal IQ Independent Variables--Treatment and Eligibility					
Eligibility	213.42288219	1	213.42288219	0.8413	0.363
Treatment	281.51834902	2	140.75917457	0.5548	0.577
Interaction	1884.92264059	2	942.46132030	3.7149	0.030
Dependent Variable--Total Information Independent Variables--Treatment and Eligibility					
Eligibility	65.90082650	1	65.90082650	2.1607	0.147
Treatment	14.13994954	2	7.06997477	0.2318	0.794
Interaction	199.71353552	2	99.85776776	3.2740	0.045

TABLE 7 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Vocabulary Independent Variable--Treatment and Eligibility					
Eligibility	14.63417793	1	14.63417793	0.5756	0.215
Treatment	215.29111211	2	107.64555606	4.2337	0.010
Interaction	110.48466787	2	55.24233393	2.1727	0.123
Dependent Variable--Comprehension Independent Variable--Treatment and Eligibility					
Eligibility	22.76854742	1	22.76854742	1.6028	0.211
Treatment	226.23385238	2	113.11692619	7.9630	0.001
Interaction	22.77886868	2	11.38943434	0.8018	0.454
Dependent Variable--Similarities Independent Variable--Treatment and Eligibility					
Eligibility	18.11902803	1	18.11902803	1.8350	0.181
Treatment	55.78310974	2	27.89155487	2.8247	0.068
Interaction	29.28666612	2	14.64333306	1.4830	0.236

interaction effect between NHS eligible and HS eligible children in the placebo treatment group. The NHS eligible and HS eligible children in the developmental and structured groups attained the same level of performance; however, the NHS eligible performed significantly better in the placebo treatment.

A significant treatment effect ($p \leq .01$) was established on the Vocabulary subtest. Scheffe's post hoc comparisons revealed significant differences between the developmental and placebo treatments and between the structured and placebo treatments. There was, however, no significant difference between the developmental and structured treatments on this subtest.

No significant differences for the Similarities subtest were established at the .05 level of significance. However, a chance probability level of .06 was established on the treatment main effects differences with the developmental and structured groups both performing at a higher level than the placebo treatment group.

A significant treatment main effect was established ($p \leq ,001$) for the Comprehension subtest. Scheffe's post hoc comparisons revealed significant differences between both the developmental treatment and the placebo treatment and the structured and placebo treatment. The difference between the developmental and structured treatments, however, was not significant.

On the Arithmetic subtest a significant interaction at the .01 level of significance was evidenced. Post hoc comparisons established that the HS eligible children in the structured treatment performed significantly better ($p \leq .05$) than the HS eligible children in the developmental or placebo treatments. However, the NHS eligible children in the developmental treatment performed significantly better than the NHS eligible children in the structured and placebo treatments.

Differences between total group pre and post mean scores indicated an average gain across all treatment groups on the WPPSI of 2.97 for all subtests. This overall main gain is that which would be expected with increase in age. (See Table 8).

Predicting Language Achievement

ANCOVA results of total score and subtest scores for the ITPA for each treatment group are presented in Table 9. The main effect of treatment did not meet the criteria of .05 level of chance probability on any of the ten subtests or on the total score. However, a significant difference was established for the eligibility effect ($p \leq .03$) on the *Auditory Sequential Memory* subtest. HS eligible children performed better than NHS eligible children across all groups on this subtest.

The subtraction of mean scores (Table 10) indicated gains on all subtests across all groups. The average gain for the subtests was 3.116 points. Gains were only slightly higher than expected gains reported in the ITPA Manual Age Norm Tables.

Predicting Self-Concept Improvement

Brown IDS Self Concept. Analysis of covariance for the *Total Self Referent* of the Brown showed a significant interaction effect. Scheffe's

TABLE 8

WPPSI Mean Gain Scores
Total Group (N = 64)

Sub-Test Names	Pre	Post	Difference
Total Information	9.63	12.67	+ 3.06
Vocabulary	15.28	16.53	+ 1.25
Animal House	32.48	43.28	+ 10.80
Picture Completion	7.98	11.61	+ 3.63
Arithmetic	6.87	8.31	+ 1.44
Maze	10.82	14.31	+ 3.49
Geometric Design	5.59	7.26	+ 1.67
Similarities	6.25	8.25	+ 2.00
Block Design	6.28	8.59	+ 2.31
Comprehension	10.05	11.84	+ 1.79
Verbal IQ	99.04	101.21	+ 2.17
Performance IQ	102.85	105.80	+ 2.95
Full Scale IQ	100.31	102.33	+ 2.02

TABLE 9

ITPA Analysis of Co-Variance (N-64[1])

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
	Dependent Variable--Auditory Reception Independent Variables--Eligibility and Treatment				
Eligibility[2]	1.33821844	1	1.33821844	0.0389	0.844
Treatment[3]	26.44405926	2	13.22202963	0.3843	0.683
Interaction	89.86387763	2	44.93193882	1.3058	0.279
	Dependent Variable--Visual Reception Independent Variables--Treatment and Eligibility				
Eligibility	0.34565086	1	0.34564086	0.0133	0.909
Treatment	3.93602111	2	1.96801056	0.0757	0.927
Interaction	18.20412614	2	9.10206307	0.3503	0.706
	Dependent Variable--Visual Sequential Independent Variables--Treatment and Eligibility				
Eligibility	24.02419141	1	24.02419141	0.5639	0.456
Treatment	24.92604384	2	12.46302192	0.2925	0.747
Interaction	54.14670026	2	27.07335013	0.6354	0.533

TABLE 9 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Visual Association Independent Variables--Treatment and Eligibility					
Eligibility	49.59835627	1	49.59835627	1.8529	0.179
Treatment	2.13929904	2	1.06964952	0.0400	0.961
Interaction	6.38166996	2	3.19083498	0.1192	0.888
Dependent Variable--Visual Closure Independent Variables--Treatment and Eligibility					
Eligibility	3.16296376	1	3.16296376	0.1103	0.741
Treatment	4.52521303	2	2.26260652	0.0789	0.924
Interaction	70.85670489	2	35.42835245	1.2357	0.298
Dependent Variable--Verbal Expression Independent Variables--Treatment and Eligibility					
Eligibility	1.52325353	1	1.52325353	0.0332	0.856
Treatment	44.19791117	2	22.0985558	0.4824	0.620
Interaction	39.87585519	2	19.93792759	0.4352	0.649

TABLE 9 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
		Dependent Variable--Grammatic Closure Independent Variables--Treatment and Eligibility			
Z					
Eligibility	7.39043669	1	7.39043665	0.6977	0.407
Treatment	0.12952455	2	0.06476227	0.0061	0.994
Interaction	17.379224341	2	8.68962170	0.8203	0.445
		Dependent Variable--Manual Expression Independent Variables--Treatment and Eligibility			
Eligibility	0.00348420	1	0.00348420	0.0001	0.991
Treatment	120.02112419	2	60.01056209	2.4494	0.095
Interaction	6.68212393	2	3.34106197	0.1364	0.873
		Dependent Variable--Auditory Association Independent Variables--Treatment and Eligibility			
Eligibility	11.26783657	1	11.26783657	0.9087	0.344
Treatment	31.34782488	2	15.72391244	1.2681	0.289
Interaction	36.31223301	2	18.15611601	1.4642	0.240

TABLE 9 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Auditory Sequential Independent Variables--Treatment and Eligibility					
Eligibility	115.26110869	1	115.26110869	4.8366	0.032
Treatment	24.76453484	2	12.38226742	0.5096	0.598
Interaction	8.834811985	2	4.17405993	0.1752	0.840
Dependent Variable--Summed Total Independent Variables--Treatment and Eligibility					
Eligibility	443.72096842	1	443.72096842	0.7349	0.395
Treatment	1261.66386718	2	630.83193359	1.0448	0.358
Interaction	73.89021736	2	36.94510868	0.0612	0.941

[1] Thirty-five NHS eligible and twenty-nine HS eligible children.

[2] Eligibility refers to Head Start guideline status.

[3] Treatment refers to Developmental, Structured, and Placebo treatments. (constant across all tables)

TABLE 10

ITPA - Mean Gain Scores (N-64)
Total Group

Sub-Test Names	Pre	Post	Difference
Auditory Reception	15.86	18.34	+ 2.48
Visual Reception	11.06	13.58	+ 2.52
Visual Sequential Memory	7.27	12.16	+ 4.89
Auditory Association	13.31	17.03	+ 3.72
Auditory Sequential Memory	15.55	16.27	+ .72
Visual Association	13.40	15.82	+ 2.42
Visual Closure	13.67	17.21	+ 3.54
Verbal Expression	9.38	13.32	+ 3.94
Grammatic Closure	10.11	12.80	+ 2.69
Manual Expression	15.08	19.32	+ 4.24
Total	124.68	155.81	+ 31.23

post hoc comparisons evidenced a significant difference ($p \leq .05$) between the NHS eligible and HS eligible children. In both the structured and developmental treatment groups, HS eligible children showed a higher positive self score than NHS eligible children. In the placebo treatment group, however, NHS eligible children performed at a higher level than HS eligible children. No significant difference was evidenced between the two classes of children in the developmental treatment group. Table 11 presents a summary of ANCOVA analysis for the Brown subtests.

Analysis of covariance on the *Total Mother* subtest evidences a significant difference between treatment groups at the .02 level of significance. Post hoc Scheffe's comparisons indicate that both the developmental and structured treatment groups performed better than the placebo treatment groups with no difference between the developmental and structured treatment groups.

Henderson-Ziller-Long Children's Self Social Constructs Test and the Woolner Preschool Self Concept Picture Test. Tables 12 and 13 present the analysis of covariance data on the two additional self concept measures. There were no significant differences between groups due to the effects of treatment or eligibility.

Predicting Improved Mother-Child Interaction

Hess and Shipman Mother-Child Interaction. Table 14 presents ANCOVA results on selected critical dimensions of this instrument. A significant difference between treatment groups at the .03 level was

TABLE 11

Brown IDS Self Concept Reference Test
Analysis of Co-Variance (N-64)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Mother-Total Independent Variables--Treatment and Eligibility					
Eligibility	0.86934196	1	0.86934193	0.1776	0.675
Treatment	41.28433538	2	20.64216769	4.2166	0.020
Interaction	1.71948592	2	0.85974296	0.1756	0.839
Dependent Variable--Self-Total Independent Variables--Treatment and Eligibility					
Eligibility	1.73789769	1	1.73789769	0.3323	0.567
Treatment	16.80180441	2	8.40090220	1.6064	0.210
Interaction	31.68211023	2	15.84105511	3.0291	0.050

TABLE 12

Henderson-Ziller-Long Self-Social Constructs Test (N-64)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Mother-Identification Independent Variables--Treatment and Eligibility					
Eligibility	10.43890193	1	10.43890193	1.9838	0.164
Treatment	7.74928792	2	3.87464396	0.7363	0.483
Interaction	0.36213693	2	0.18106846	0.0344	0.966
Dependent Variable--Father-Identification Independent Variables--Treatment and Eligibility					
Eligibility	4.48937130	1	4.48937130	0.5095	0.478
Treatment	4.87220737	2	2.43610369	0.2765	0.759
Interaction	6.93100600	2	3.46550300	0.3933	0.677
Dependent Variable--Friend-Identification Independent Variables--Treatment and Eligibility					
Eligibility	0.45572921	1	0.45572921	0.0675	0.796
Treatment	4.91287907	2	2.45643953	0.3636	0.697
Interaction	12.90576870	2	6.45288435	0.9552	0.391

TABLE 12 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Teacher-Identification Independent Variables--Treatment and Eligibility					
Eligibility	0.45572921	1	0.45572921	0.0675	0.796
Treatment	4.91287907	2	2.45643953	0.3636	0.697
Interaction	12.90576870	2	6.45288435	0.9552	0.391
Dependent Variable--Forced Mother Independent Variables--Treatment and Eligibility					
Eligibility	0.11834852	1	0.11834852	0.1433	0.706
Treatment	1.59430037	2	0.79715018	0.9651	0.387
Interaction	0.26295725	2	0.13147862	0.1592	0.853
Dependent Variable--Forced Father Independent Variables--Treatment and Eligibility					
Eligibility	2.01705288	1	2.01705288	2.7712	0.101
Treatment	1.01347423	2	0.50673711	0.6962	0.503
Interaction	0.05825435	2	0.02912718	0.0400	0.961

TABLE 12 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Forced Friend Independent Variables--Treatment and Eligibility					
Eligibility	1.51332371	1	1.51332371	1.6634	0.202
Treatment	0.49973794	2	0.24986897	0.2746	0.761
Interaction	1.87567219	2	0.93783609	1.0308	0.363
Dependent Variable--Forced Teacher Independent Variables--Treatment and Eligibility					
Eligibility	0.91760901	1	0.91760901	0.7319	0.396
Treatment	2.67913475	2	1.33956737	1.0684	0.350
Interaction	0.74903089	2	0.37451544	0.2987	0.743

TABLE 13

Woolner Preschool Self Concept Picture Test
Analysis of Co-Variance (N-64)

Variables	Sum of Squares	Degrees of Freedom	Mean Score	F	Level of Probability
Dependent Variable--Agree Total Independent Variables--Treatment and Eligibility					
Eligibility	7.64284721	1	7.64284721	0.7241	0.398
Treatment	7.90724500	2	3.95362250	0.3746	0.689
Interaction	8.24931315	2	4.12465658	0.3908	0.678
Dependent Variable--Disagree Independent Variables--Treatment and Eligibility					
Eligibility	1.98375603	1	1.98375603	0.1969	0.659
Treatment	3.74714317	2	1.87357159	0.1860	0.831
Interaction	6.39733438	2	3.19866717	0.3176	0.729

TABLE 14

Hess and Shipman Mother-Child Tasks
Analysis of Co-Variance (N-64)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Total Specific Attributes (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	16.21098080	1	16.21098080	4.3500	0.041
Treatment	27.42477558	2	13.71238779	3.6880	0.031
Interaction	5.03143520	2	2.57571760	0.6766	0.512
Dependent Variable--Verbal Negative Reinforcement (Puzzle) Independent Variable--Treatment and Eligibility					
Eligibility	2.65308055	1	2.65308055	0.5488	0.462
Treatment	30.48714968	2	15.24357484	3.1530	0.050
Interaction	8.73623683	2	4.36811841	0.9035	0.411
Dependent Variable--Verbal Positive Reinforcement (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	1.75381353	1	1.75381353	.5874	0.447
Treatment	14.32462545	2	7.16231272	2.3990	0.100
Interaction	18.19757049	2	9.09878524	3.0477	0.054

TABLE 14 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Questions - Verbal (Puzzle) Independent Variables--Treatment and Eligibility					
Eligibility	0.10730619	1	0.10730619	0.1311	0.719
Treatment	3.0838755	2	1.54191878	1.8843	0.161
Interaction	0.34353569	2	0.17176785	0.2099	0.811
Dependent Variable--Maternal Affection (Puzzle) Independent Variables--Treatment and Eligibility					
Eligibility	2.34317221	1	2.34317221	0.1998	0.657
Treatment	11.55221520	2	5.77610760	0.4925	0.614
Interaction	33.4139856	2	16.70699263	1.4244	0.249
Dependent Variable--Questions - Verbal (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	2.99585096	1	2.99585096	0.6580	0.421
Treatment	2.68749838	2	1.34374919	0.2951	0.746
Interaction	0.62600082	2	0.31300041	0.0687	0.934

TABLE 14 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Verbal Positive Reinforcement (Puzzle) Independent Variables--Treatment and Eligibility					
Eligibility	0.86303282	1	0.86303282	0.0991	0.754
Treatment	41.47601501	2	20.73800756	2.3822	0.101
Interaction	23.56870374	2	11.78435187	1.3537	0.266
Dependent Variable--Command - Verbal (Puzzle) Independent Variables--Treatment and Eligibility					
Eligibility	0.77309624	1	0.77309624	0.3546	0.554
Treatment	0.50975994	2	0.25487997	0.1169	0.890
Interaction	4.12151310	2	2.06075655	0.9452	0.395
Dependent Variable--Questions - Physical (Puzzle) Independent Variables--Treatment and Eligibility					
Eligibility	0.55975802	1	0.55975802	0.2456	0.622
Treatment	4.68652318	2	2.34326159	1.0280	0.364
Interaction	3.19566135	2	1.59783068	0.7010	0.500

TABLE 14 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
	Dependent Variable--Maternal Affection (Toy Sort) Independent Variables--Treatment and Eligibility				
Eligibility	3.67260382	1	3.67260382	2.2277	0.140
Treatment	1.86513437	2	0.93256719	0.5657	0.577
Interaction	3.07852899	2	1.53926449	0.9337	0.399
	Dependent Variable--Total Specific Attributes (Puzzle) Independent Variables--Treatment and Eligibility				
Eligibility	4.96588306	1	4.96588306	1.8020	0.185
Treatment	0.48920384	2	0.24460192	0.0888	0.915
Interaction	2.75885011	2	1.37942505	0.5006	0.609
	Dependent Variable--Commands - Physical (Puzzle) Independent Variables--Treatment and Eligibility				
Eligibility	8.15537630	1	8.15537630	0.4969	0.487
Treatment	5.99566508	2	2.99783254	0.1827	0.834
Interaction	7.90870556	2	3.95435278	0.2409	0.787

TABLE 14 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Verbal Negative Reinforcement (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	0.00016897	1	0.00016897	0.0002	0.988
Treatment	0.21685059	2	0.10842529	0.1465	0.864
Interaction	3.02437647	2	1.51218823	2.0430	0.139
Dependent Variable--Commands - Verbal (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	3.13808852	1	3.13808852	1.3596	0.248
Treatment	0.91014021	2	0.45507010	0.1972	0.222
Interaction	17.19227790	2	8.59613895	3.7242	0.130
Dependent Variable--Commands Physical (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	3.37344137	1	3.37344137	0.7549	0.389
Treatment	10.53039855	2	5.26519927	1.1782	0.315
Interaction	5.35496061	2	2.67748030	0.5992	0.553

TABLE 14 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Questions - Physical (Toy Sort) Independent Variables--Treatment and Eligibility					
Eligibility	0.07317241	1	0.07317241	0.0799	0.779
Treatment	0.37675472	2	0.18837736	0.2056	0.815
Interaction	0.05240132	2	0.02620066	0.0286	0.972

evidenced on *Total Reference to Specific Attributes*. Mothers in the developmental and structured treatment groups referred to specific attributes of the task more often than mothers in the placebo group. However, the difference between mothers in the structured and developmental groups was not significant. A significant difference at the .04 level was evidenced on eligibility effect for this criterion with the HS eligible mothers mentioning more total specific attributes than the NHS eligible mothers.

An interaction effect ($p \leq .055$) was evidenced on the rate of *Verbal Positive Reinforcement* for the toy sort task. Scheffe's post hoc comparisons indicate that HS eligible mothers in the developmental treatment group used more positive reinforcement than NHS eligible mothers in their same group as well as more than the HS eligible mothers in the structured group. However, HS eligible mothers in the developmental and structured treatment groups essentially used the same rate of verbal positive reinforcement.

A significant interaction ($p \leq .03$) was evidenced for *Commands Verbal* on the toy sort task. Scheffe's post hoc comparisons revealed significant differences within each treatment by eligibility at the .05 level. This is, in the developmental treatment group the NHS eligible mothers used significantly more verbal commands that did the HS eligible mothers; in the structured treatment group, the HS eligible mothers used significantly more verbal commands than the advantaged mothers; and in the placebo treatment group, the HS eligible mothers used significantly more verbal commands than the NHS eligible mothers.

No significant differences ($p \leq .05$) were evidenced for Verbal Positive Reinforcement on the puzzle task using the analysis of covariance model. The NHS eligible mothers, however, used appreciably more verbal positive reinforcement than the HS eligible mothers.

Treatment differences ($p \leq .05$) were evidenced for treatment main effects on the Verbal Negative Reinforcement variable for the puzzle task. Scheffe's analyses reveal a difference ($p \leq .05$) between the developmental treatment group and both the structured and placebo treatment groups with the developmental group performing better than the other two groups.

MSU Tell-A-Story Test. Analysis of covariance evidenced a significant interaction effect at the .03 level of significance for Quantity of Words used. Scheffe's post hoc comparisons indicated that the HS eligible mothers in both the developmental and structured treatment groups used significantly higher total number of words ($p = .05$) than the NHS eligible mothers in these groups. However, in the placebo treatment group, the reverse was evidenced, i.e. the NHS eligible mothers used a significantly higher total number of words than the HS eligible. ANCOVA results for the Tell-A-Story Test can be seen in Table 15.

Analysis of covariance evidenced a significant difference ($p \leq .046$) for Syntax on treatment main effects. Scheffe's post hoc comparison indicates a significant difference ($p \leq .05$) between the developmental treatment and both the structured and placebo treatment groups. However,

TABLE 15

MSU Experimental Tell-A-Story Test, ANCOVA (N-64)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Syntax-Complexity Independent Variables--Treatment and Eligibility					
Eligibility	69.77469705	1	69.77469705	0.1162	0.735
Treatment	4004.51082611	2	2002.25541306	3.3347	0.046
Interaction	2824.23738557	2	1412.11869279	2.3518	0.108
Dependent Variable--Question - Complete Sentences Independent Variables--Treatment and Eligibility					
Eligibility	0.00157768	1	0.1294	0.1294	0.721
Treatment	0.0709668	2	2.9104	2.9104	0.060
Interaction	0.00035075	2	0.0144	0.0144	0.986
Dependent Variable--Incomplete Sentences: Complete Sentences Independent Variables--Treatment and Eligibility					
Eligibility	0.00188624	1	0.00188624	0.2294	0.635
Treatment	0.04670459	2	0.02335230	2.8398	0.070
Interaction	0.00320382	2	0.00160191	0.1948	0.824

TABLE 15 (Continued)

Variables	Sum of Squares	Degrees of Freedom	Mean Square	F	Level of Probability
Dependent Variable--Questions - Total Number Independent Variables--Treatment and Eligibility					
Eligibility	39.64282904	1	39.64282904	1.1384	0.292
Treatment	33.87191064	2	16.93595532	0.4863	0.618
Interaction	98.28633713	2	49.14316856	1.4112	0.255
Dependent Variable--Quantity - Total Numbers of Words Independent Variables--Treatment and Eligibility					
Eligibility	6.03442131	1	6.03442131	0.1222	0.728
Treatment	177.50377307	2	88.75188654	1.7974	0.179
Interaction	372.79846758	2	186.39923379	3.7749	0.031
Dependent Variable--Complete Sentences Independent Variables--Treatment and Eligibility					
Eligibility	41.70485348	1	41.70485348	0.8755	0.355
Treatment	69.94237781	2	34.97118890	0.7342	0.486
Interaction	291.3956273	2	145.69781337	3.0587	0.050

no significant difference was evident between the structured and the placebo treatment groups. An interaction effect ($p \leq .108$) was evidenced with HS eligible mothers in the developmental and structured treatment groups using a more complex syntax than NHS eligible mothers, and the NHS eligible mothers in the placebo treatment group using a more complex syntax than the HS eligible.

Analysis of covariance evidenced an interaction effect ($p \leq .058$) for number of Complete Sentences. Scheffe's post hoc comparisons indicate a significant difference ($p \leq .05$) between the NHS eligible and HS eligible mothers in the placebo treatment group with the NHS eligible mothers using a significantly higher number of complete sentences. In the developmental treatment group the HS eligible mothers scored slightly higher than the NHS eligible mothers and in the structured treatment group the NHS eligible mothers performed slightly higher than the HS eligible; however, these differences did not meet the .05 level of significance.

Differences ($p \leq .06$) were found for the Ratio of Questions to Complete Sentences for treatment main effects. Post hoc comparison indicates that mothers in the structured treatment group used a higher proportion of questions than mothers in the developmental and placebo treatment groups with no difference between these latter two groups.

A treatment effect ($p \leq .07$) was also evidenced on the Ratio of Imcomplete to Complete Sentences with the structured treatment group evidencing a proportionately higher number of incomplete sentences than the other two treatment groups and the placebo treatment group using a proportionately higher number than the developmental treatment group.

Control Data

A covariance model was also employed to analyze the 1967-1968 Elkton-Pigeon-Bay Port Head Start data as another kind of control group. Since all children in this "pure control" group were HS eligible, the ANCOVA model used in this analysis now included only the treatment variable but expanded the number of treatment groups to four and deleted the NHS eligible children from the 1968-1969 sample.

Hess-Shipman Mother-Child Interaction. A significant difference between treatment groups at the .001 level of significance was evidenced on the Total Specific Attributes: Toy Sort. Head Start eligible mothers in the developmental and structured groups performed significantly better than both the placebo and pure control groups.

A significant difference ($p \leq .01$) was evidenced on Verbal Positive Reinforcement: Toy Sort with the placebo and pure control mothers reinforcing at a higher rate than the developmental mothers and the structured mothers using significantly less verbal positive reinforcement than all other groups.

On the Commands Physical: Toy Sort dimension, HS eligible mothers in the pure control group were found to differ significantly ($p \leq .01$) from mothers in the other group. However, HS eligible mothers in the developmental and placebo control treatment groups both used significantly more physical commands than mothers in the structured group.

The Location of Maternal Affectionateness for the Toy Sort task revealed a significant difference ($p \leq .001$) between the pure control group mothers and the mothers in the three treatment groups.

On the Puzzle task only the Questions Verbal criterion was significant. Mothers in the control group were found to use significantly more verbal questions than the other mothers. However, HS eligible mothers in the placebo treatment group used more verbal questions than the developmental and structured treatment groups. Table 16 presents post-test mean acores by treatment group for the Mother-Child Interaction.

This same model was utilized to analyze the 1967-1968 Stanford-Binet total IQ and the 1968-1969 WPPSI total IQ scores. Table 17 presents mean gain scores for the three treatment groups and the control group. No significant difference was evidenced between the treatment groups and the control group; however, differences in gain scores do indicate a positive effect for the treatment groups.

Analysis of the Brown Self Concept control data indicated significant gains ($p \leq .026$) for the structured and placebo groups of HS eligible children; however, post scores for the developmental and control group children were not significantly different from their pretest scores. Table 18 presents mean gain scores by treatment groups.

Attendance

One indirect measure of program "meaningfulness," at least as far as it is related to participant judgment, is participant attendance. Participation of mothers across all groups was excellent and consistent. Table 19 gives attendance figures in all groups based on 18 mothers

TABLE 16

Mean Gain Scores on Hess-Shipman Mother Child Interaction

Subtest	T_1	T_2	T_3	T_4
Toy Sort: Total Specific Attributes	6.78	4.72	3.98	3.94***
Toy Sort: Verbal Positive Reinforcement	2.82	0.82	3.27	3.94**
Toy Sort: Verbal Negative Reinforcement	.71	.18	.48	.92
Toy Sort: Commands Physical	4.53	2.35	3.80	6.27
Toy Sort: Commands Verbal	.59	1.10	2.01	0.16
Toy Sort: Questions Physical	0.13	0.43	.75	1.93
Toy Sort: Questions Verbal	2.94	2.36	2.62	3.64
Toy Sort: Location of Maternal Affectionateness	3.10	2.09	2.94	6.14***
Puzzle: Specific Attributes	4.17	3.59	3.96	1.98
Puzzle: Verbal Positive Reinforcement	4.92	2.37	4.46	3.92
Puzzle: Verbal Negative Reinforcement	2.76	1.57	3.65	2.42
Puzzle: Commands Physical	6.97	5.48	7.10	9.20
Puzzle: Questions Physical	1.76	.85	1.39	.53
Puzzle: Questions Verbal	.23	.31	1.05	2.09*
Puzzle: Maternal Affection	4.40	3.09	3.92	3.88

* Significant at .05 ** Significant at .01 *** Significant at .001

T_1 - Developmental Treatment
T_2 - Structured Treatment
T_3 - Placebo
T_4 - Pure Control

TABLE 17

Group X IQ Scores and Gain Scores

	T_1*	T_2*	T_3*	T_4**
Pretest Score	98.72	92.72	109.22	97.62
Post test Score	105.00	99.13	110.56	94.08
Gain score	+6.28	+6.41	+1.34	-3.54

T_1 - Developmental Treatment
T_2 - Structured Treatment
T_3 - Placebo
T_4 - Pure Control

* - WPPSI
** - Binet

TABLE 18

$\bar{X}$ Group Brown Self Concept Scores and Gain Scores

	T_1*	T_2	T_3	T_4
Pretest Score	5.44	8.13	9.56	8.08
Post Test Score	5.66	10.25	11.67	8.15
Gain Score	+.22	+2.12	+2.11	+.07

*T_1 - Developmental Treatment
T_2 - Structured Treatment
T_3 - Placebo
T_4 - Pure Control

in each group. There were only 6 mothers out of the 72 sample mothers who did not regularly attend the parent meetings. It is only fair to state that the program did not reach these 6 mothers at all.

Factors confounding attendance such as weather conditions, seasonal illness, and a flu epidemic undoubtedly had a toll on the mothers' attendance. Under these impending conditions attendance was excellent.

It is not surprising that the best attendance records were in the three groups that had the more warm, empathetic teachers, and that the majority of attrition in the study (5 of 8 children) occurred in the class that had the cool demanding teacher.

Enthusiasm in all groups was high. Mothers seemed to enjoy the group meetings and varbalized their desire to continue such activities after the training program. They willingly shared their experiences in using the materials within the group. It is felt that positive relationships and greater understanding among the mothers have been generated through their interacting in the meetings.

The children's reactions to the program are perhaps the most difficult to assess, yet, undoubtedly the most important. Many children have expressed pride and pleasure over the fact that their mothers had (some for the first time) "come to school." The children in the experimental groups have been discussing materials in the classroom and with the teachers. Mothers report that the children continually pressure them to work on the materials and attend the meetings.

TABLE 19

Mothers Attendance (N-106)

Meeting Number	Developmental Treatment		Structured Treatment		Placebo Treatment	
	Class I	Class II	Class I	Class II	Class I	Class II
1	8	13	3	2	6	13
2	5	15	10	10	10	10
3	7	15	8	14	10	10
4	13	16	11	12	10	6
5	10	13	11	15	11	4
6	11	13	12	10	11	7
7	10	12	12	12	8	7
8	8	13	13	10	8	13
9	8	11	11	7	10	9
10	12	12	11	12	12	11
11	6	12	10	10	10	12
12	16	12	11	7	13	12

CHAPTER V

DISCUSSION

The ANCOVA of WPPSI verbal subtests supports the contention that even a short twelve week parent training program, specifically focused upon content material can, in fact, affect positively Head Start children's language behavior. Similar analyses of data from the MSU Tell-A-Story technique further indicated that the mother's language behavior had also changed over this short span of time. Since both treatments (structured and unstructured) were superior in most cases to the placebo group, the implication is that the comparative aspects of the study may be of secondary importance. That is to say that a parent program focusing on a parent/teacher team approach toward specific content can be interpreted to be a source of major variance, with the kind of program being meaningful but of secondary importance.

Another major purpose of the present study was to determine the effect of mother's participation in a language training program on their Head Start children's ability. No eligibility or treatment differences at the .05 level of confidence were evidenced on total score IQ. However, a significant interaction ($p \leq .05$) on these two independent dimensions was evidenced for verbal IQ indicating that disadvantaged (HS eligible) children performed as well as the more advantaged (NHS eligible) children when their mothers received specific language instruction (the developmental and structured treatment groups) but advantaged children performed better than disadvantaged when their mothers received no specific instruction (placebo treatment group). Examination of specific verbal subtests (Total Information, Comprehension and Similarities) reveals significant differences between those children who received any specific instruction at home and those who did not with the results being that children with specific instruction perform significantly higher on verbal items.

Analysis of performance subtests revealed no significant differences on either eligibility or treatment. Therefore, the differences on the verbal subtests would seem to be the result of the language training program.

The Illinois Test of Psycholinguistic Abilities, however, evidenced no significant difference on treatment or eligibility for total score. Gains obtained for subtests were only slightly higher than expected gains reported in the ITPA Manual Age Norm Tables. As there were several significant differences on the verbal subtests of the WPPSI but only one for the ITPA there appears to be a discrepancy in the measured verbal skills of the children. A definite possible source of error, however, may be in the administration of the ITPA. Test administrators were not experienced in the administration of this instrument and the training period was brief. The WPPSI on the other hand was administered by examiners extremely skilled in its use.

Another source of error might be in the selection of the ITPA as a measure of treatment group differences. The ITPA, as described by its authors, is principally a diagnostic measure. The test was designed to yield a profile of individual strengths and weaknesses. Any treatment then becomes a leveler and differentiated group differences become more uniform or are not as readily apparent.

Weener, Barritt, and Semmel (1967) in a critical evaluation of the ITPA reported a high internal consistency. However, they also reported poor test-retest reliabilities for sub-scales and large standard errors of measurement. Weener _et_ _al_ also point out that due to a restricted norm group, the ITPA may not have enough easy items to reliably test young disadvantaged children.

Of course, another interpretation of these data is that working with mothers and children in language education experiences has no differential effect on the preschooler's language performance as measured by the ITPA.

Subtest analyses revealed a significant difference ($p \leq .03$) only on the _Auditory_ _Sequential_ subtest and related to eligibility differences. The fact that HS eligible children performed better than NHS eligible children on this item is of particular interest. Jensen (1969) discusses the literature reporting this same finding among black disadvantaged children on such serial learning tasks as the digit span and concludes that this phenomenon is due to the racial-environment interaction. This study, however, shows that disadvantaged _white_ children also perform significantly better on this task which suggests that the commonality may be one of class rather than race.

An emphasis of the parent language program was that children and parents learn by working together. The mother's role as a good teacher is continually reinforced as she sees her child learn. These accomplishments of both the mother and the child increase one's feeling of self worth. Statistical support of this effect was evidenced on the Brown Self Concept measure. Significant differences ($\leq .02$) were found between treatment groups on the *Total Mother* score. Children of the developmental and structured treatment groups had a more positive perception of their mother's view of them than children in the placebo treatment group. A significant interaction effect ($p \leq .05$) on the *Total Self* score indicated that HS eligible children evidence a more positive self concept when their mothers work with them using specific materials in the home. Disadvantaged children attain the same level of positive self concept as advantaged children when mothers work with them; however, when there is not specific interaction with the mother, the NHS eligible child's self concept is more positive than the HS eligible.

Several pertinent differences were evidenced on both the Hess-Shipman Mother-Child Interaction and the MSU Tell-A-Story in the direction of differentiated treatment effects. A treatment difference ($p \leq .03$) was evidenced on mother's usage of specific attributes on the *Toy Sort* task. Mothers who were trained in the specific language skills (the developmental and structured treatment groups) mentioned more specific attributes on the *Toy Sort* task than did mothers without specific training. An important implication of this finding is that low income mothers can indeed learn specific childrearing skills in a relatively short period of time (12 weeks).

Another significant finding of particular interest was evidenced on the *Verbal Negative Reinforcement* scale. The structured treatment group used significantly more negative reinforcement than the developmental treatment group ($p \leq .05$). However, no differences were evidenced between the structured and placebo group mothers. Further insight into these findings is gleaned by considering the two types of statements which can be coded as negative reinforcement:

> Mother I states calmly: "No, John the red block does not go there."
>
> Mother II states in an irritated manner: "John you know that isn't the right one to put there."

The language education programs, particularly the structured treatment, emphasized that the mothers should call the child's attention to his _incorrect_ as well as his _correct_ actions in reference to a given task. This form of negative reinforcement was found largely in the structural treatment group. However, the more typical form of negative reinforcement that reflects negative effect and is less task specific is typical of mothers not exposed to the information gaining aspects of negative reinforcement.

Verbal Positive Reinforcement treatment differences had a chance probability of .055. Mothers in the structured treatment group used less _Positive Verbal Reinforcement_ than either the developmental or placebo treatment group mothers. Since positive reinforcement was stressed in training sessions in the structured group as well as the developmental, it seems questionable that such a difference would be evidenced. However, in light of the fact that mothers in the structured treatment group mentioned significantly more specific attributes of the task, it seems reasonable to assume that these children completed the task with fewer steps, hence fewer correct responses that would elicit verbal positive reinforcement.

The inconsistency of findings on a given dimension for the two tasks demonstrated the difference in the nature of the two tasks as well as weaknesses in scoring procedures. For example, both examiners were aware of definite differences in the maternal warmth dimension between the two tasks, between NHS eligible and HS eligible mothers, and among the treatment groups on the post test. Because the Toy Sort task is relatively easy for both mother and child, little effect is aroused resulting in a high frequency of high scores on the warmth end of the scale. The Puzzle Task, however, is more difficult and elicits a wide range of responses, especially from the less secure mother. The warmth dimension is scaled from 1-13 from "Passionate, consuming, intense, ardent, uncontrolled" to "hostile, rejecting, disliking, blaming, icy." Tester variability alone within this span of possible judgments could cover up any differences. The typical middle class mother's behavior (anxious, warm, loving but not particularly expressive) and the disadvantaged mother's responses (expressive in both warm, loving and hostile rejecting ways) went unrecorded or were categorized incorrectly.

Analysis of the MSU Tell-A-Story Test evidenced several significant findings. Mothers in the language treatment groups, when compared to the placebo, used more words when telling their children about the pictures. This finding is consistent with experimenter expectation since mothers were instructed in reading, telling stories, playing games, etc. with the child always pointing out the specifics related to the task. However, mothers in the placebo treatment had not had these kinds of experiences or instruction.

A syntactical difference between treatment groups ($p \leq .04$) in the mother's stories was also evidenced. It is interesting that mothers in the developmental treatment group used more complex language patterns than mothers in both the structured and placebo control groups. The similarity of style between the structured and placebo group mothers could be the result of two different approaches. The structured treatment evidenced the repetition of specific simple language patterns which were easily understood by a child. Mothers in this group, it is felt, phrased their story in the same style which they had learned in their lessons. The placebo group mother, on the other hand, found it necessary to rely on her previous experiences and sense of what "a child's story should be like." The developmental treatment group, on the other hand, was focusing on the content of the story, often giving specific descriptions utilizing a more complex sentence structure involving more modifiers, conjunctions, etc.

Although the total number of questions asked by the mother was not significantly different across treatment or eligibility groupings, it is interesting to note a difference in maternal styles revealed by the instrument. The instructions to the mother were "to tell Johnny about the pictures." However, auditing of the tapes revealed two styles of maternal response. One mother would very descriptively tell the child about the pictures (as test designers had hoped); however, the other mother would involve the child in a dialogue about the picture often employing questions to do so. This observation occurred across advantaged--disadvantaged lines and appears to be an individual difference unrelated to treatment.

Disadvantaged (HS eligible) mothers in the specific language treatment groups were found to use an equal or greater number of complete sentences than advantaged (NHS eligible) mothers. However, disadvantaged mothers in the Placebo treatment group used significantly less complete sentences than advantaged mothers. This finding adds further leverage to the implication that treatment effects on language patterns can indeed be brought about in a short period of time using a specific program of intervention.

A linear regression analysis in which the Quantity and Syntax dimensions from the Tell-A-Story and the Commands Verbal and Verbal Positive Reinforcement from the Mother-Child Interaction, when run against all other measures, failed to establish any relationship between child or mother post score and mother pre score on these dimensions. It may be assumed then that differences found on post tests were the result of treatment main effects rather than the mother's level of language skill upon entering the program.

Control Data. The utilization of the 1967-1968 Head Start data as a "pure control" offered some indication of the effect of the experimental program. However, the limitations of 1) an incomplete battery of test data, 2) a sample of Head Start eligible children only, and 3) small sample size (N = 18), tend to lessen the leverage a "pure control" might lend to the study.

Several interesting results were evidenced from analysis of the

Mother-Child Interaction. Head Start eligible mothers who participated in the language training programs were found to use significantly ($p \leq .001$) more references to specific attributes than both the placebo and pure control groups. The fact that Head Start eligible mothers without specific training do not point out specific task-related attributes to their children in a teaching situation further magnifies the need for this specific training. However, that mothers with this minimal training can so markedly improve in their role as teachers is indeed enlightening.

Head Start eligible mothers in the placebo and pure control groups used significantly more Verbal Positive Reinforcement than did mothers in the treatment groups. This seemingly discrepancy can, in part, be explained by the nature of the scoring. Each time the child responds to a request by the mother, there is an opportunity for the mother to reinforce this child behavior. Although the mother may reinforce both verbally and positively at each such instance, she is limited by the number of child actions. Since the mothers in treatment groups used significantly more specific directions, the likelihood of the child completing the task in fewer steps is increased; thus, limiting the instances in which the mother might use verbal positive reinforcement. A more meaningful scoring system would account for this by computing the ratio of rate of reinforcement to total maternal directional units.

The use of a greater number of Physical Commands by the untrained (pure control and placebo group) mothers was further confirmation of Hess's work (1965). The fact that Head Start eligible mothers in the structured treatment group used less physical commands than the developmental group mothers can perhaps be explained by the emphasis in the structured group on the structured verbal patterns of interaction with the child, i.e., the mother phrased her commands so that a verbal response would be required of the child.

A significant difference on the Maternal Affection scale ($p \leq .001$) was undoubtedly due to tester differences as this same phenomena occurred also within the experimental groups.

A difference ($p \leq .05$) between the mothers in the pure control and mothers in the three other treatments was found on the Questions Verbal subscale. Again, examiner difference seemed to be the critical determinant on this dimension.

Analysis of intellectual performance as measured by the Stanford-Binet (for the 1967-68 sample) and WPPSI (for the 1968-69 sample) yielded no significant difference between the experimental (developmental and structured treatments) and the pure control and placebo treatments. However, mean gain scores for the Head Start eligible children in the developmental and structured groups were 6.28 and 6.41, respectively, as compared to 1.34 and -3.54 for placebo and pure control groups, respectively. The increase in child performance with increase in level of maternal participation should be noted.

CHAPTER VI

SUMMARY

This study had two major purposes. The first was to gain further leverage on the issue of how effective Head Start parents could be as change agents in an intervention effort; in this case, of language behavior. The second was to compare two approaches toward such a parent model that varied in the amount of structure built into the treatment content.

Conclusions

The conclusions related to these purposes are stated here in summary form, along with a brief restatement of some of the relevant findings. Internal validity was established by the use of statistical controls, and multiple measures, however, the limitations in generalizing the results, due to the nature of sampling, should be noted.

1. Child change differences as a function of treatment provide results which are equivocal. No clear evidence of the superiority of one level of structure over another in treatment content is evident.
2. Children whose parents participate in language education programs in which increased interaction with the child is stressed increase in language skills. The experimental language groups performed higher than the placebo control on verbal intelligence subtests of the WPPSI.
3. Children whose mothers interact early, personally, and specifically with their children, have a more positive perception of their mother's view of them, and with disadvantaged children (HS eligible), this interaction also results in a more positive _self_-concept.

4. Mothers who participate in specific language programs increase their own verbal and linguistic skills as well as the quality of interaction with their children. Mothers in the two language treatment groups scored higher than placebo treatment group mothers on critical dimensions of both the Mother-Child Interaction and the Tell-A-Story.
5. Children whose mothers participate in a specific parent education program such as language training perform better than children whose mothers participate in a general workshop or no treatment.
6. Head Start eligible children perform as well as Head Start ineligible children when their mothers work with them in the home. However, advantaged children perform at a higher level than disadvantaged children when no specific directions for the mother to work in the home is given.
7. Head Start eligible children in this rural area perform at a higher level than Head Start eligible urban children commonly reported upon in the literature.
8. Rural mothers' attendance in a parent education program is higher than urban mothers participation commonly reported in the literature.

Implications and Recommendations

The need for an effective model and instruments for implementing and evaluating parent training with the Head Start program led to this study. The development of the model of trainer-teacher-parent proved effective and has obvious implications for future programs.

These lessons are presently being evaluated in light of the findings of this study and are being revised and extended as part of the curriculum development efforts of the Michigan State University Head Start Research Center. Sample lessons are provided in Appendices A, B and C.

A survey of evaluative instruments indicated the need for an instrument to measure the mother's quantitative input in her interactions with her child. The development of the MSU Tell-A-Story test provided additional information on this critical, but often overlooked, maternal variable.

It is obvious from the study that the preschool child alone cannot learn as well as the child whose parents are working along with him. The interactions between parent and child in meaningful, learning situations has traditionally been through parent education programs. However, typical parent education programs involve the parent in listening to "experts" tell him about his own child. In contrast to this passive approach, this study reinforces the fact that the parent must be actively involved in a way that is meaningful to him.

This study has found successful parent education characterized as follows:

1. Feelings of respect for and confidence in the parents are communicated by all personnel involved in the program.

2. Parents are involved in the decision making as much as possible. Competent personnel establish rapport that allows for this in group discussion, planning, and role playing.
3. Parent's groups of 25-35 are too large for effective interaction, this implies at least 2 classes a week. Atmosphere should be informal and supportive for developing social relationships.
4. Concurrent home visits by teachers or other interested people are important, especially for the culturally different family. This gives the teacher a chance to positively reinforce the parent's effort in the home and give special attention to particular problems.
5. Mothers will participate without renumeration, but attention to transportation and babysitting problems enhance attendance.
6. Programs have specific content that meet two broad objectives, and specific objectives that meet the agreed upon needs of parents and children of a particular community in a particular social setting.
    a. General Objectives
        (1) To provide educational experiences for parents that extend their awareness of importance of the early years to cognitive, social-emotional, and physical growth development.
        (2) To provide parents with a variety of relevant skills which they can apply in teaching situations in the home to enhance this development.

Finally, through this active participating preschool involvement parents may develop a "positive style of encounter" with the school situation that may extend into later public school experiences of their children. Perhaps, this kind of program can invalidate the "cumulative deficit hypothesis."

The finding that the disadvantaged child performs as well as the advantaged child when his mother works with him in the home definietly points out the need for earlier home intervention. The enthusiasm with which the disadvantaged mothers worked with their children and attended meetings illustrates their concern and willingness to participate in such programs when presented.

Summary

The purposes of this study of the effect of parents as agents of change on their Head Start children were: 1) to determine if parents can be an effective change agent in a Head Start Program, 2) to determine which approach of parent intervention is most effective, and 3) to determine whether parent involvement in a Head Start program can effectively change parent attitudes.

The sample consisted of 6 Head Start classes with 104 total children. Seventy-two of these rural white advantaged and disadvantaged children and parents were randomly selected for the testing sample. The six classes were randomly paired to obtain samples consistent with the proportion of advantaged and disadvantaged children in the total population. The pairs of classes were assigned to three treatment groups:

developmental language treatment, the structured language treatment, and the workshop placebo treatment.

Each group of mothers met in twelve weekly two hour sessions with their children's teacher. The general atmosphere was conceived to be one of parents and teachers working together to attain the goals and objectives of each program. Training and instructions to the teachers for each week's program was provided each Monday by the investigator. At these weekly orientations the trainer would go over specifically prepared objectives, materials, and lessons with each pair of teachers. Each teacher met with the trainer each Friday for an evaluation of that week's program in terms of attendance, problems and suggestions. The professional person involved in training was constant across all training groups in an attempt to minimize effects of trainer variability. Follow-up home visits were used to provide materials and directions to mothers unable to attend meetings. Other mothers came to the school for makeup lessons. Teachers refrained from direct use of materials developed for the training program in their own classroom programs.

Five testing instruments were used to test the intellectual, linguistic, self concept and mother-child interaction performances. They were: (1) The Wechsler Preschool and Primary Scale of Intelligence, Record Form 1967, (2) the Illinois Test of Psycholinguistics, Revised Record Form, 1968, (3) MSU Self-Social Constructs Test, (4) The Hess and Shipman Mother-Child Interaction Tests, (5) MSU Tell-A-Story Test. Tests were administered twice in October and April.

The major hypotheses predicted improved: (1) language performance; (2) intellectual performance; (3) self concept development; and (4) mother-child interaction, as a result of a differentiated parent education language program.

These hypotheses were tested by employing the following procedures: Variables were submitted to a 2 x 3 analysis of co-variance model with eligibility and treatment as independent variables. In this procedure, the post-test of each dependent variable was analyzed by analysis of co-variance, with the appropriate pre-test serving as a co-variate for the post-test. This procedure sets the initial group differences equal to zero in terms of post-test interpretations. This does not allow a test for significant pre-to-post gains across all groups. Therefore, group pre-to-post mean scores were subtracted to obtain scores.

Analysis of covariance results for Full Scale IQ as measured by the WPPSI indicated a slightly significant difference ($p \leq .08$) between treatment groups. Both the NHS eligible and HS eligible children in the language treatment groups performed significantly better ($p \leq .03$) on the Verbal IQ subscale.

Several significant differences were evidenced on the Hess-Shipman Mother-Child Interaction in the direction of differentiated treatment effects. Mothers trained in language treatment used significantly more specific language in the explanation of a task to the child. Mothers in the Structured treatment group used significantly more Negative Reinforcement ($p \leq .05$) and mothers in the developmental group used more Positive Reinforcement ($p \leq .05$).

Analysis of the MSU Tell-A-Story Test revealed that mothers with language training groups use more words and more complete sentences when telling a story to their children. However, mothers in the developmental treatment group used more complex language patterns than mothers in the other groups. The results would have to be viewed as equivocal in terms of which program approach is superior, but clear-cut in terms of the positive effects of specific content oriented parent intervention in achieving positive child change through intervention efforts.

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APPENDIX A

Developmental Lessons

I - IV

DEVELOPMENTAL I

Color

Objectives

To establish an atmosphere of learning together -- parent and teacher.

To extend parent's awareness of the importance of the early years by discussion of the developmental nature of intellectual and language growth in the preschool years.

To provide the parents with the general theory and philosophy of the developmental language approach.

To provide parents with a variety of relevant skills which they can apply in teaching situations at home to enhance their child's developing discriminative skills and concept acquisition.

To provide parents with materials and techniques to teach the child color identification and ability to verbally express himself fully and accurately concerning color.

Developmental Group

I. Go through booklet in general discussion form. Then have mothers illustrate their books.

II. Make specific things for activities.

III. Necessary Materials

- A. red, yellow, orange, green, blue, black, brown, white or manila construction paper.
- B. crayons and newsprint
- C. old magazines

IV. Poetry Sheets

Please do not use the word poetry per se. Some parents have unpleasant associations. Rather talk about: this is red, or all about orange, etc.

Go through each color as the parent will with the child. Reading it through for them initially, discussion about it, let us make a picture of "purple". Suggest that they work with one color each day. Begin with primary colors.

WHY IS COLOR IMPORTANT?

It's another giant step for your child in learning about the "big world around him."

"Should I cross the street?"
It's important for your child to know that a red light means to STOP and that a green light means to GO.

When Terry begins to see that things look different because of their color, he is learning a before-we-read skill. When he squeals,

"Momma, my shirt matches my socks."

He's not far away from seeing letters that look alike and those that look different.

Momma, my name has two r's in it.

MOMMA, YOU CAN HELP! Just follow me and I will help to show you how.

COLOR IS ALL AROUND US!

Does your young child see it?

What color is your wagon, Terry?

"Color, what's that."

Not only can he learn to see color, but he will enjoy learning his colors.

"Would you like to wear your blue shirt or your green one?"

"My green one."

IT TAKES A LITTLE TIME . . .

but everyday and everywhere there are things that happen in your house or neighborhood that can help you.

THERE ARE THINGS THAT HAPPEN

"There is a big truck, Terry,
What color is it?"

"Here is a picture on this new magazine. The man's hat is brown. Can you find some other objects in the picture that are brown, Terry?

Here comes the mailman, Terry.
Look, he is wearing a blue suit.

THERE ARE THINGS AROUND THE HOUSE TO HELP YOU:

Furniture

"Which chair do you want to use, Annie, the green one there or the yellow one here?"

Dishes

"This is a red bowl. Can you find another one that is the same color?"

Food

"You may have one piece of candy, Terry. What is the color of the piece you would like?"

Clothing

"Here are your blue socks, Annie, What color is your sweater?"

THERE ARE PLACES YOU GO that will help you teach your youngsters colors.

Library

"Look, Terry, this yellow book has a picture of a clown on it. What color is the book that you found?"

Grocery

"We will get these red apples and orange colored oranges. What else in our basket is the same color as the apples?"

Ride in the car

"Look, that house is painted green. What else can you see that is green?"

It takes a little time but you, Momma, have to become aware of the reds, greens, and blues that are around you.

LET'S FOLLOW YOUR YOUNGSTER THROUGH a day

Getting dressed

"Look, Terry, your sweater is the same color as Momma's dress."

Walking down the street

"What color is the light, Terry?"
"Red, Momma."
"What does that tell us to do, Terry?"

Shopping

"Here is a picture of a bright red tomato on this can."

EATING HIS FOOD
(Colors of fruits and vegetables)

"You have chosen the yellow fruit for your lunch."

Riding in the car

Look, Terry, at the red fire hydrant."

YOUR TEACHER WILL HELP YOU . . .

There are materials at the preschool that your home visit teacher will be happy to give to you to help your youngster have fun learning his colors.

Colored paper:

Momma, you can paste a small piece of colored construction paper on a paper or cardboard.

Hand Terry or Annie several small pieces of different colors of paper. Be sure to give him some pieces of the same color you pasted on the cardboard.

Terry (or Annie), pick out the pieces that are the same colors as this (point to your piece) and you may paste them on this paper.

Old Magazines

Make a Color Book

"Terry, you may cut out yellow items and paste them all on this page. You may paste all red items on another page. We can then tie the pages together with string or yarn."

Momma, you can use other colors or let Terry decide what color he wants to collect.

Paint

Children love to mix paints and make other colors and to use the paints purely for the sake of painting. Mothers can use such an activity to teach colors.

"What color would you like to use today?"

"Why, Terry, did you see that the color you used is the same color as the chair?"

"Would you like to use the color of paint that is the same as the color of your shirt?"

Blocks of Wood

Mother and teacher can paint blocks of wood for child to match or to separate.

Mother can pick out one color block and ask Terry, "Can you find another block this same color? What color is it?"

When Terry asks, "What can I do, Mommie," why not put the colored blocks in a pile and ask Terry to put all of the blocks of one color in a separate box, pan or pile.

Old Materials

You can have fun with these by putting several pieces of material into a paper sack. You or Terry can hold the sack closed and shake it to mix up the pieces.

"Now, Terry, you can put your hand in the sack and pull out a piece of the material. Look which one you have chosen! What color is the piece of material?"

Crayons

When you are busy, Momma, here is a good way to help Terry learn his colors. While you are working, let Terry use the crayons freely on paper (newspaper will do if you don't have any plain paper). Afterwards you can admire his work.

"How nicely you've used these crayons." You can then point to each color and say, "Terry, what color did you use here."

Here is another game that is fun!

While Terry hides his eyes, you can make a mark with a crayon and put it back with the others. Then you can say,

"Find the crayon that matches this mark that I made and then you can make a mark beside the one I made.

BE COLOR CONSCIOUS!

Teaching your youngster colors can be fun for both you and him once you begin.

Don't wait

start today.

WHAT IS RED? *

Red is a sunset
Blazy and bright.
Red is feeling brave
With all your might.
Red is a sunburn
Spot on your nose,
Sometimes red
Is a red, red rose.
Red squiggles out
When you cut your hand.
Red is a brick and
A rubber band.
Red is a hotness
You get inside
When you're embarrassed
And want to hide.
Fire-cracker, fire-engine
Fire-flicker red--
And when you're angry
Red runs through your head.
Red is an Indian
A Valentine heart,
The trimming on
A circus cart.
Red is lipstick,
Red is a shout,
Red is a signal
That says: "Watch out!"
Red is a great big
Rubber ball.
Red is the giant-est
Color of all.
Red is a show-off
No doubt about it--
But can you imagine
Living without it?

WHAT IS YELLOW?

Yellow is the color of the sun
The feeling of fun
The yolk of an egg
A duck's bill
A canary bird
And a daffodil
Yellow's sweet corn
Ripe oats
Hummingbird's
Little throats
Summer squash and
Chinese silk
The cream on top
Of Jersey milk.
Dandelions and
Daisy hearts
Custard pies and
Lemon tarts.
Yellow blinks
On summer nights
In the off-and-on of
Firefly lights
Yellow's the color of
Happiness.

---

*O'Neill, Mary. Hailstones and Halibut Bones, New York: Doubleday & Company, 1961. (All poems from this volume)

WHAT IS BLUE?

Blue is the color of the sky
Without a cloud
Cool, distant, beautiful
And proud.
Blue is the quiet sea
And the eyes of some people,
And many agree
As they grow older and older
Blue is the scarf
Spring wears on her shoulder.

Blue is twilight,
Shadows on snow,
Blue is feeling
Way down low.
Cold is blue;
Flame shot from a welding torch
Is, too:
Hot, wild, screaming, blistering Blue--
And on winter mornings
The dawns are blue. . . .

WHAT IS GREEN?

Green is the grass
And the leaves of trees
Green is the smell
Of a country breeze.
Green is lettuce
And sometimes the sea.
Green is an olive
And a pickle
The sound of green
Is a water trickle

Green is the world
After the rain
Bathed and beautiful
Again.
April is green
Peppermint, too.
Every elf has
One green shoe.
Under a grape arbor
Air is green
With sprinkles of sunlight
In between.

WHAT IS ORANGE?

Orange is a tiger lily,
A carrot
A feather from
A Parrot,
A flame
The wildest color
You can name.
Orange is happy day
Saying good-bye
In a sunset that
Shocks the sky.
Orange is brave
Orange is bold
It's bittersweet
And marigold
Orange is zip
Orange is dash
The brightest stripe
In a Roman sash.
Orange is an orange
Also a mango
Orange is music
Of the tango.
Orange is the fur
Of the fiery fox,
The brightest crayon
In the box.
And in the fall
When the leaves are turning
Orange is the smell
Of a bonfire burning. . . . .

WHAT IS PURPLE?

Time is purple
Just before night
When most people
Turn on the light--
There's purple jam
And purple jell
And a purple bruise
Next day will tell
When you landed and fell.
The purple feeling
Is rather put-out
The purple look is a
Definite pout.
But the purple sound
Is the loveliest thing
It's a violet opening
In the spring.

WHAT IS BLACK?

Black is the night
When there isn't a star
And you can't tell by looking
Where you are.
Black is a pail of paving tar.
Black is jet
And things you'd like to forget.
Black is a smokestack
Black is a cat,
A leopard, a raven,
A high silk hat.
The sound of black is
"Boom! Boom! Boom!"
Echoing in
An empty room.
Black is kind--
Black is licorice
And patent leather shoes
Black is the print
In the news.
Black is beauty
In its deepest form,
The darkest Cloud
In a thunderstorm.
Think of what starlight
And lamplight would lack
Diamonds and fireflies
If they couldn't lean against
Black. . . .

WHAT IS BROWN?

Brown is the color of a country road
Back of a turtle
Back of a toad.
Brown is cinnamon
And morning toast
And the good smell of
The Sunday roast.
Brown is the house
On the edge of town
Where wind is tearing
The shingles down.
Brown is a freckle
Brown is a mole
Brown is the earth
When you dig a hole.
Brown is the hair
On many a head
Brown is chocolate
And gingerbread.
Brown is a leather shoe
And a good glove--
Brown is as comfortable
As love.

FINGER PLAYS

Today is_______________birthday
Let's make her a cake
Mix and stir
Stir and mix
Then into the oven and bake
Here's our cake so nice and round
We frost it pink and white
We put_________candles on it
To make a birthday light.

Here is a bunny and a green cabbage head
"I wish I had some breakfast,"
The little bunny said.
So he nibbled and nibbled
Then turned around to say,
"I think I will be hopping
On my merry, merry way."

Here is a bunny with ears so funny
Here is his hole in the ground
When a noise he hears
He pricks up his ears
And jumps into his hole in the ground.

Here are Grandma's glasses
Here is Grandma's hat
This is the way she folds her hands
And lays them in her lap.

Here are Grandpa's - etc.
Here are Baby's - etc.

I have 10 little fingers and they all belong to me
I can make them do things, would you like to see?
I can shut them up tight - I can open them wide
I can put them together, I can make them all hide
I can make them jump high
I can make them jump low
I can fold them up quickly and hold them just so.

Two little houses closed up tight
Open up the windows
Let in the light.
Ten little finger people tall and straight
Ready for nursery school
Half past eight.

Five little pumpkins sitting on a gate
First one said, "My it's getting late."
Second one said, "There's witches in the air."
Third one said, "I don't care!"
Fourth one said, "Let's run, let's run."
Fifth one said, "Isn't Halloween fun!"
Woosh went the wind--out went the light.
Those five little pumpkins ran out of sight.

Open, shut them,
Give a little clap
Open, shut them
Lay them in your lap.
Creep them, creep them
Right up to your chin.
Open up your mouth
But don't let them in.

A little ball, a bigger ball, a great big ball I see,
Now let us count the balls, One, two, three.

The carpenter's hammer goes tap, tap, tap, (fist)
And his saw goes see, saw, see (saw back and forth)
He planes (smooth out hands)
and he measures (spread arms)
and he saws (as above)
and he hammers (as above)
And he builds a house for me. (peak hands above heads)

My zipper suit is bunny brown,
The top zips up --
The legs zip down,
My daddy brought it out from town.
Zip it up --
Zip it down,
And then go out to play.

I saw a little rabbit
That went hop, hop, hop.
And he had big ears
That went flop, flop, flop.
And this little rabbit
Was very, very queer
He shook one leg
And he wriggled one ear.

FINGER PLAYS

Five little fishes were swimming near the shore. (wriggle fingers of left hand)
One took a dive, and then there were four. (point to thumb, then turn down.)
Four little fishes were swimming out to sea. (wriggle four fingers)
One went for food, and then there were three. (point to index finger, turn down)
Three little fishes said, "Now what shall we do?" (hold up three fingers)
One swam away, and then there were two. (point to next finger, turn down)
Two little fishes were having great fun, (wriggle the last two fingers)
But one took a plunge, and then there was one. (hand in plunging motion)
One tiny fish said, "I like the warm sun!" (hold up little finger)
Away he went, and then there were none. (put fist behind back)

Here's a little washboard,	(back of fingers of one hand)
And here's a little tub.	(cup both hands)
Here's a little cake of soap,	(closed fist)
And this is how we rub.	(rub "soap" on washboard)
Here's the clothesline 'way up high	(hands over head)
Where the clothes are drying.	
Here the wind comes ----- oo-oo-oo-!	
Now the clothes are drying.	

Helping Mother

I help my mother.
I sweep the floor, (swing arms, pretending to sweep)
I dust the table, (make a circular motion with one hand)
I run to the store. (run a few steps and then run back)

I help her beat eggs, (hold hands together, moving one in a small circle)
And sift flour for cakes. (holding one hand closed, shake it back and forth)
Then I help her eat
All the good things she makes. (hold hand to lips, pretending to take a bite of something)

Counting the Bunnies

"My bunnies now must go to bed,"
The little mother rabbit said,
But I will count them first to see
If they have all come back to me."

"One bunny, two bunnies, three bunnies dear,
Four bunnies, five bunnies - yes, all are here!
They are the prettiest things alive --
My bunnies, one, two, three, four, five."

(Touch the fingers in turn as you count.)

DEVELOPMENTAL II

Books

Objectives

To continue to provide a cooperative atmosphere for learning together -- parent and teacher.

To emphasize the importance of experiences with books and stories for the young child

a. through increased curiosity and interest in books.

b. through increasing perceptual, conceptual language development.

c. through enjoyment and broadening of the range of the child's general knowledge.

To help parents understand their role in providing story experiences for their child.

To discuss practical guidelines for selection and use of books and encourage a commitment to read to their children, trying out these suggestions.

Developmental

I. Introduction importance reading with your child --

  See Purposes - short

II. Show Films - discuss

  A. What kinds of things in this story appeal to the young child.

  B. Discuss handout "Using Books With Children"

III. Role Play - Teacher

  A. Choose 3 mothers to act - do demonstration stressing "Thoughts on Reading"

IV. Refreshments - Browse through books available

V. Role Play - Individuals

  Mothers practice with each other

IV. Mothers check out books

  Encourage them to read once a day.

VII. Songs & Finger Plays

Reading With Children

Purposes for Lesson

It is crucial to emphasize the importance of experience with books and stories for the young child. Secondly, we must help the parent understand their role in providing experiences with books for their children.

When a parent is reading to his child, he demonstrates an interest in books and knowledge. More important, however, is the personal attention given which helps the child feel worthy of his parent's time, interest, and love.

Hearing a story, talking about it, is a sharing experience and worthwhile in itself. In addition, these kinds of "happy" experiences have great reinforcement potential for the learning available:

through books and conversation

through increased curiosity and interest in books

through perceptual, conceptual, and language development

through enjoyment and broadening of the range of the child's general knowledge

If we can help the parent consider the specific, positive influences which reading with children has upon a child's development during the early years and later implication for success in school, a cooperative atmosphere may be enhanced. It is interesting that some parents see books as important but not as pleasurable and beautiful in themselves. Some parents may never have developed positive attitudes toward books. Negative attitudes, we would hope, will become positive as parents explore the wonderful world of children's literature, the old and new, varying in shape, style and content.

It is the purpose of this meeting, then, to stimulate curiosity, excitement, and desire in the parents to read to their children.

We will do this through use of 2 delightful filmed children's stories; through discussion of practical suggestions for selecting and using books with pre-school children; through providing an opportunity for them to try these suggestions; visit to local library.

SONGS

My hands upon my head I place,
On my shoulders, on my face,
On my knees, and at my side,
Then behind me they will hide.
Then I raise them up SO high,
Swiftly count to 1, 2, 3.
And see how quiet they can be

Take a little runabout
Oh take a little runabout
Take a little run about
All come home
Skip-hop-jump
Walk-sway-slide.

There is a cabin in the woods
Little old man by the window stood
Saw a rabbit hopping by
Knocking at my door
Help, help me, help me he said
Before the hunter shoots me dead
Come on in and rest awhile
Happy we will be.

Ten Little Ducklings
Dash, Dash, Dash
Jumped in a duck pond
Splash, Splash, Splash
When Mother called them
Quack, Quack, Quack
Ten little ducklings
Swam right back.

This is the way we wash our face (wash
face) morning, noon, and night.
We wash our ears, we wash our neck (wash)
We wash them with all our might.

This is the way we brush our teeth (brush)
morning, noon, and night.
We brush them up, we brush them down (do)
We brush them clean and white.

Look at me
Look at me
I'm an air-o-plane
I zoom and zoom and zoom
Just like an air-o-plane
Kangaroo
Turkey, etc.

I am very small
I am very tall
Sometimes small
Sometimes tall
Guess what I am now
Small! or tall!

Gu-lunk went the little green frog
one day
Gu-lunk went the little green frog
Gu-lunk went the little green frog
one day
And they all went (tongue out noise)

Mrs. Polly's Dolly who was sick, sick,
sick,
She telephoned the Dr. to come quick,
Quick, Quick.
The Dr. came with a bag in his hand
And he knocked at the door with a tap,
tap, tap
He looked at the dolly and he shook
his head.
He said, Mrs. Polly, put her straight
to bed
He wrote on a paper for a pill, pill,
pill,
I'll be back in the morning with the
bill, bill, bill.

Mr. Jumping Jack is a funny old man
He jumps up and down just as fast as
he can.
His arms fly out
His feet fly too
Mr. Jumping Jack
How do you do.

Oh, there were three ducks that I once
knew
Big ducks, little ducks, pretty ones too.
But the one with the feathers
Curled up behind his back
Ruled all the others
With a quack, quack, quack
Quack, quack, quack.

THE YOUNG CHILD'S FAVORITES

Title	Author	Publisher
A Hole is to Dig	Ruth Krauss	Harper
All Kinds of Babies	Selsam	William Scott, Inc.
Animals Everywhere	O'Aulaire	Doubleday
Ask Mr. Bear	Marjorie Flack	MacMillan
Blueberries for Sal	Robert	Viking
Make Way for Ducklings	McCloskey	Viking
Caps for Sale	Exphyr Slobdkina	Scott
Choo Choo	Virginia Burton	Houghton
The Little House	Virginia Burton	Houghton
500 Hats of Bartholomew	Dr. Seuss Cubbins	Vanguard
Goodnight Moon	M. W. Brown	Harper
George, the Gentle Giant	Hall	Golden Press
Happy Lion	Louise Fatio	Whittlesey
I Want to Paint My Bathroom Blue	Krauss	Harper
Inch by Inch	Leo Lionni	Obelensky
Let's Go Outdoors	Huntington	Doubleday
Millions of Cats	Wanda Gag	Coward
Mike Mulligan and His Steam Shovel		Houghton
Over and Over	C. Tolotov	Harper
Story About Ping	Flack	Viking
Wait For William	Flack	Houghton
White Snow - Bright Mon.	A. Tresselt	Lathrup
Where The Wild Things Are		

THOUGHTS ON READING WITH CHILDREN

Choose stories you like--you can make them live. Read the story before reading it to your child. Be familiar.

Make sure your child is "ready" for a story. Say or do something to gain his interest.

Hold the book at the child's eye level with pictures facing him.

Children love to be told stories as well as to be read to. Better yet, let them help you make up a story.

The child needs to learn to listen attentively to stories so make allowances for their wandering, short attention spans. Kepp a positive enthusiasm for the story.

Books do not always have to present new information but can re-create the world the child knows and strenghten his understanding of it.

Children's experiences are broadened and enriched through books related to experiences.

Stories that appeal to young children are short, simply written, and have many colorful pictures.

A magazine can be used to stimulate discussion with the child.

The child may color a picture and he and mommy make up a story about it.

USING BOOKS WITH YOUNG CHILDREN

I. Arrangements and techniques which foster children's use of books:
   - A. Good light.
   - B. Table at comfortable height.
   - C. Books in good condition.
   - D. Adult listens to child's comments about books and stories.
   - E. Adult reads stories to children.
   - F. Permit children to use books alone.
   - G. Have small reading groups.
   - H. Provide uncrowded and comfortable space for using.
   - I. Arrange books attractively where they can be seen.
   - J. Vary the selection.

II. Generally young children like stories which have the following characteristics:
   - A. Experiences which are familiar to them.
   - B. Some repetition and rhythm.
   - C. Words which appeal to the sense of sound.
   - D. Action words.
   - E. Clear, simple pictures.

III. Characteristics to consider when selecting books for certain general age groups:
   - A. The two-year old:
     1. It is recognition of the familiar, not novelty, that gives thrill.
     2. Likes to imitate familiar sounds.
     3. Like stories that repeat his own experiences.
     4. Has favorite books, to introduce a new one, use the favorite subject for bridge to new story.

   - B. The three-year old:
     1. He is interested in people and things outside the home.
     2. Responds to words such as "different","surprise", "secret."
     3. Likes books about something he's seen or adventures with familiar things.
     4. Interrupts to tell his experiences and point to the pictures.
     5. Likes books that permit participation.

   - C. The four-year old:
     1. Better listener-he does not need physical contact with book.
     2. Likes books that include his qualities of exaggeration, imagination, bubbling humor, new words, and/or preoccupation with how and why.
     3. The humor and fantasy need firm anchorage in reality.
     4. Likes everyday life told with a light touch and a bit of verse.

References:

Hartly, Ruth; Goldenson, Robert - -The Complete Book of Children's Play, Thomas Y. Crowell Company, New York, 1957.

Read, Katherine -- The Nursery School, W.B. Saunders, Philadelphia, Pennsylvania, 1955.

DEVELOPMENTAL III

Flannelboards to Facilitate Language Development

Objectives

1. To explain the use of the flannelboard as a versatile educational tool for enriching the language of their children.
2. To assist mothers in construction of a flannelboard and materials to use with it.
3. Provide the mothers with exemplary demonstrations and guided opportunity to experiment with the materials.
4. To provide specific activities that develop
    a. Visual discrimination (Special Animal Games)
    b. Concepts of specific community places (Pretend Time) and people (Thinking Cap Games)
    c. Auditory sequencing (Story Cut-Out) (Finger Plays) (Songs)
    d. Auditory discrimination (Silly-Funnies Game)
5. To encourage mother to listen to child, pay particular attention to his questions and build her activity from there.

SPECIAL ANIMALS:

The children are presented with pictures of animals which are special in some way.

Mother asks her child to tell what makes that animal so special. After child does this, ask him to tell you something else about the animal. (e.g. size, shape, color, texture, etc.) Add to game with magazine pictures backed with flannel.

Elephant -- trunk, tusks, gray

Giraffe -- his long neck, legs

Zebra -- black and white striped

Skunk -- odor

PRETEND TIME:

Mother begins by telling her child a story something like this. Jimmy, we will go on a trip together, see if you can guess where it is. We walk into a building, and we see shelves with canned food on them. Then we come to a table with lots of bananas, apples, pears. Vegetables are piled up there, too. Do you see meat piled up in the corner over there? What kind of a place do you suppose I was talking about ? (Grocery Store)

Gas Station -- tires, cans of oil, big pumps.
Fire Station -- trucks, hoses, hats.
Post Office -- letters, packages, mailmen.
Shoe Store -- shoes, all kinds.
Bakery -- rolls, pies, cakes, cookies.
Library -- books and magazines.

Reverse the game -- put a picture of the place on the flannel board, then ask the child to sort through the flannel cuts and put all the things that belong in that place on the board.

THINKING CAP GAME:

Using the policeman hat, the fireman hat, farmer hat, nurse, hat, say to child, "Jimmy, here is Mr. Doodlepunk. Look at his hat. You tell mommy about Mr. Doodlepunk. What kind of work does he do?"

Another day use the hats and board to make up a story.

STORY CUT-OUT:

Use an inexpensive Golden Book of The Three Bears, or something similar. Cut out pictures, back with flannel and use to tell story to the child. After he has heard it once or twice, have him tell it to you.

SILLY-FUNNIES:

Mother: I'm going to tell you a funny story about you and your friends. Listen and see if you can tell me some "silly-funnies" in my story.

Once upon a time three children came to school. Their names were Debbie, Tony, and Tom. They were all boys and they were 50 years old. Their teacher was a baby named Spot. Every day the children rode to school in a boat. When they got to school,they put on their pajamas and went to bed. When they woke up they had supper. Then they colored pictures on the ceiling and took them home. When school was over, a fire engine came to get them.

SHAPES, COLORS, SIZES:

Prepare different colored triangles, squares, circles, and rectangles that may also vary in size.

Work with your child very informally by having him make a "picture" with them calling his attention to color, shape and size.

FIVE RED APPLES:

Five red apples in a basket by the door
Little Agnes took one and then there were __?__
Four red apples were still enough for me
Ann picked one up and then there were __?__
Three red apples and what did I do?
I baked one in a pie and then there were __?__
Two red apples. Before this story's done
I'll make some juicy apple sauce and that will leave __?__
One red apple, I'll put it in a sack
I'll take it off to school and eat it for a snack.

Developmental - IV

Objectives

To continue the emphasis on a co-operative interaction between parent and teacher - learning together.

To continue emphasis on the ways in which parents teach and the manner in which they teach. (Film - Helping Headstart University of Hawaii.)

To provide parents with a review experience in the use of flannel board activities that emphasize language development.

To provide parents guidance in the construction and use of a "Guess What Box" designed to reinforce learning of the size, shape, color and texture of objects as well as the words and phrases necessary to describe these characteristics.

Teachers

I. Film: Helping Headstart - Parent Education 16mm

II. Discussion of film

A. Encourage mother to think of other ways in which they share what they know with their child during the course of a day.

B. Encourage them to discuss any negative reactions that the film may have called forth.
Example: "I just don't have time to do all that." Help them work this through to the effect that while no mother performs this way 100% of the time. However, our awareness of these potential learning situations will help us capitalize on them when the situation permits.

III. Review flannel board use.

Ask for new ideas, problems.

IV. Construct "Guess What Box."

1. Cover shoe box with crepe paper tissue, contact or construction paper. (see example)

2. Use such items inside as plastic spoons (different colors)
thimble
spool thread
sock
pencil
eraser
comb

V. "Pick Out" an activity similar to C. (see sheet for mothers)

VI. Continue with books, songs and finger plays

"Pick out."

Put a collection of objects in the center of the table. Ask the child to pick the object you are talking about.

For example:

tin foil pan - "What's round and shiny?"
knitting needle - "What's long and sharp?"
toothpick - "What's short and sharp?"
bottle opener - "What do you open pop with?"
piece of flannel, felt or fur - "What's soft and fuzzy?"

Can you help us think of some others?

"Guess What Box"

1. Cover shoe box with crepe paper, tissue paper, or construction paper.

2. Use such items inside as: plastic spoons (different colors)
   thimble
   pencil
   spool of thread
   sock
   eraser
   comb

   or any other object you have at home that the child could describe.

You hold the box, have the child reach in - with an "air of mystery" ask him to tell you everything he can about the object without telling you what it is. Mother tries to guess what it is. Then it's Mother's turn to pick from the box and the child guess. Here is a good chance for us to discuss color, size, shape, use, etc.

Keep changing the objects in the box. Encourage the whole family to play at other times during the day. Have fun.

APPENDIX B

Structured Lessons

I-IV

STRUCTURED GROUP I

Color

Objectives

To establish an atmosphere of learning together -- parent and teacher.

To extend parents' awareness of the importance of the early years by an examination of the sequential nature of intellectual and language growth in the preschool years.

To provide parents with a repertoire of relevant skills which they can apply in teaching situations to enhance their child's discriminative skills and concept acquisition.

To provide parents with the general theory and philosophy of the structured language approach.

To provide parents with materials and techniques to teach the child color identification and the initial language structure -- (naming).

Structured Group

I. The emphasis in our group will be to help the child explain and discuss things in complete sentences. To verbalize each thing he sees or does. Mother should reward his behavior with a smile, good, hug, etc. More repetition, better it is.

II. Materials needed

  A. Red, yellow, blue, green, orange, brown, black construction paper.

  B. Crayons - newsprint

  C. Manila board for Bingo.

III. Take each game, explain it - make material for it - then play game - questions from mothers.

IV. Suggest play different game each day as well as repeating any earlier ones.

HELPING PARENTS TEACH YOUNG CHILDREN

OBJECTIVES

-- To extend parents' awareness of the importance of the early years by an examination of the developmental nature of intellectual growth in the years before six.

-- To provide parents with a repertoire of relevant skills which they can apply in teaching situations to enhance their child's discriminative skills and concept acquisition.

In successful parent education programs, parents gain not only insight into the "what" and "how" of children's needs and developmental processes, but also a greater sense of competence -- as persons and parents. This sense of competence comes from: (1) the feelings of respect for and confidence in the parents which are communicated by the program leader, teachers, and others; (2) the acknowledgement of the many things which parents do, often unaware, which help to foster their child's intellectual and emotional development; (3) the communication of new knowledge relevant to the parental role and the specification of additional practices which the parents are capable of carrying-out which will further enhance their child's development.

Often parents feel that once their child is enrolled in a school program his education is no longer their responsibility. The educational process may seem to be some mysterious realm which the person without specialized training is not qualified to enter. These notions must be dispelled and the parent assured that not only does he have a real role in supporting the school but that he is continually functioning as a teacher to the young child, helping him to make sense out of the world by adding to his pool of information and helping him process and relate these items.

Throughout the discussion, stress should be placed on: (1) the importance of learning in the years before six (by emphasizing the enormity of the intellectual growth that takes place during these years and the sequential nature of learning, so that later learning depends upon the establishment of a good foundation to build upon); (2) the relative ease with which parents can positively influence this process; and (3) the real differences which this can make to the child.

Learning Our Colors

I. I See Something

Mother says,"I see something. It is in this room. It is red, it is on the table. It is a square. " (A book)

II. Establish Names of Colors

1. Give each child a pile of color strips - red, blue, yellow, (orange, green, purple)
2. Mother picks a red one.
3. We want to find one that is the same as this one and put them together.
4. Theee are colors and they have names
5. I will show you _____ red. Everyone or "Jimmy" hold up red.
6. Good - say I have a red one.
7. Now I will hold up _______.
8. Mix up yours and hold up _______.
9. Good - say its name.

III.Copying Designs

Draw I red house
2 blue balls
2 oranges - fruit
I green tree

Use sorting colors

IV. Muffin tins, egg cartons, pie pans as sorting trays. M & M's, buttons, yarn, pipe cleaners. This is a red one - Yes Tom that is red. Put all the blue ones together, red, yellow, etc. Have child repeat as he puts it in, "This is a red one, etc."

V. Color Bars Game

I. 3 to 6 color strips. We are going to play a game.

2. I will be the dealer first, when I make a mistake it will

be your turn.

3. Now choose a color you will collect. The dealer will find the color and give it to you. If I make a mistake it is your turn to be dealer.
4. All right Tommy what color do you need
(played with whole family)

VI. Go Fish

This game provides an ideal opportunity for children to practice talking in full sentences, especially if a standard dialogue is made the rule of the game.

Example:

1. Child: Do you have a yellow card?
2. Mother or other child: Yes, I have a yellow card, or
No, I do not have a yellow card. Go Fish.
3. Do you have a green card, etc.
4. If the child has the card he is asked for, he hands it over to the one who has requested it who then matches it to his own card and puts the pair down in front of him.
5. If he does not have the card the child asking takes one instead from a common pile (Go Fish).
6. He goes on until all the cards are used and the winner is the child with the most pairs.

VII.Color Bingo

1. Caller- who has the color yellow.
2. Player- I have the color yellow

red

orange

black

green

blue

brown

yellow

pink

gray

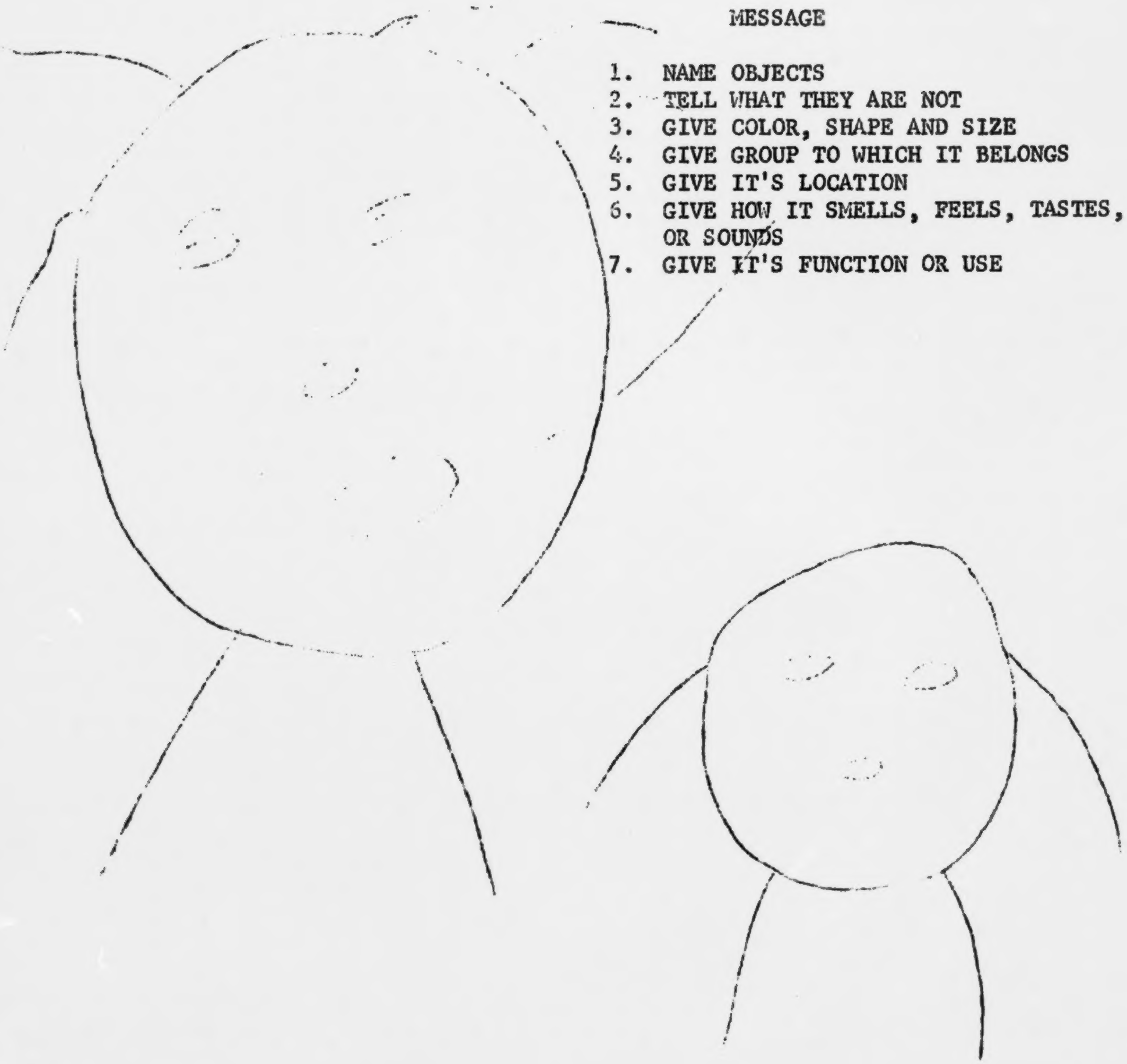
VIII.What's Missing

multi-colored crayons, buttons, candies, etc.

1. Mother arranges items in sequence of colors, asks child to look at it carefully - hide his eyes and then open them.
2. Mom; "Which one is missing?"
3. Child: "The yellow one is missing."
4. Start with 3 items, work up.

IX. 1. I have given you a work-sheet with six pictures on it.

2. These pictures are alike in one way and different in other ways.
3. Can you tell me in what way they are alike?
4. Right, they are all brushes.
5. In what ways are they different. Point out different uses - Now:
    1) Put a blue X on the brush you use to brush your hair.
    2) Put a red circle around the brush you use to brush your clothes.
    3) Put 2 green lines under the brush that is used to polish your shoes.
    4) Put a black X on the brush you use to brush your teeth.
    5) Put a brown   around the brush you use to paint a picture.
    6) Put a purple circle around the brush that you would use to paint a house.



MESSAGE

1. NAME OBJECTS
2. TELL WHAT THEY ARE NOT
3. GIVE COLOR, SHAPE AND SIZE
4. GIVE GROUP TO WHICH IT BELONGS
5. GIVE IT'S LOCATION
6. GIVE HOW IT SMELLS, FEELS, TASTES, OR SOUNDS
7. GIVE IT'S FUNCTION OR USE

SENDER- MOTHER

RECEIVER- CHILD

1. GET THE CHILD'S ATTENTION
2. EXPLAIN THE WHOLE TASK
3. GIVE ALL THE NECESSARY DETAILS IN THE MESSAGE
4. GET THE CHILD TO START AND CONTINUE THE TASK
5. GIVE THE CHILD A CHANCE TO ASK QUESTIONS AND CHANGE TEACHING IF NEEDED
6. GIVE THE CHILD A CHANCE TO PRACTICE
7. PRAISE THE CHILD UPON COMPLETION OF THE TASK, SO HE WILL WANT TO DO IT AGAIN.

Structured Group -Lesson II

Objectives

To summarize many ways in which parents teach.

To analyze a teaching situation (message, motivation, feedback).

To establish an atmosphere of learning together, parents and teachers.

To have parents practice teaching each other.

Techniques

Helping Headstart, Parent Teaching by Jean Fargo - Univ. of Hawaii 16 mm film.

Presentation of elements of effective teaching.

Demonstration of parent teaching a child.

Role-playing of similar situations by the parents.

Content

Summary of the many ways parents teach.

Elements affecting success of teaching

1. Attention
2. Explanation of the whole task
3. Use of elaborate code so all necessary details are included in the message.
4. Motivation (Getting the child to complete the task he has started.)
5. Feedback (Allowing ample opportunity for the child to question and then altering procedures as indicated.)
6. Praise (Use at the completion of a task as well as during the task. It is important the child realize what specific behavior he is being rewarded for.)

Role-Playing

The teacher plays the mother and her aid the child. Their performance is deliberately not a perfect example of good teaching. Parents are then encouraged to evaluate this teaching situation and role play their own "situations."

1. Using Books With Our Children

   Look at the pictures.

   Name the objects, actions, or events.

   React to picture in a physical way, such as eating the ice-cream or patting the dog.

   Encourage a dialogue concerning the pictures.

   Have the child repeat a line after you.

2. Practice in Labelling

   That is attaching the right word to things in the world around him.

3. Practice in describing objects and events.

4. Practice in simple counting.

   Sample Interaction

   Parent (pointing to a picture): "What is this, Tom?"

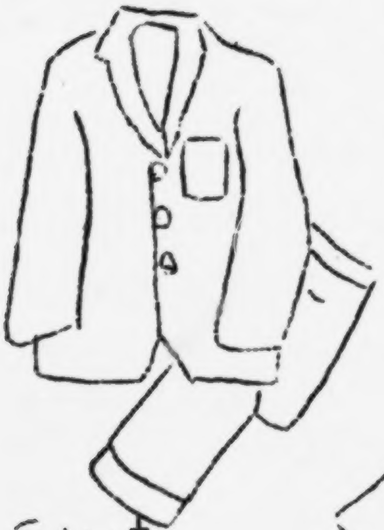
   Child: "This is an airplane."

   Parent: "Can you tell me something about the airplane?"

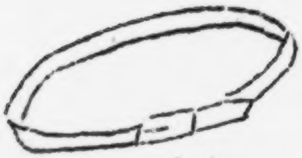
   (If no answer, the parents should be more specific in his questioning.)

   Parent: "Is the airplane big or small? Is the airplane fast or slow?" etc.

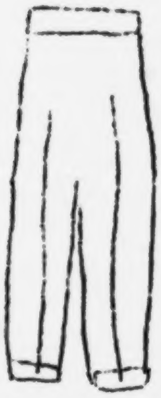
Words for Clothes



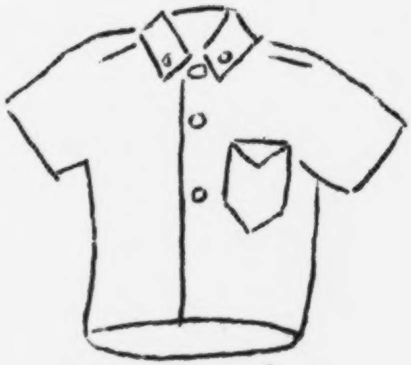
suit



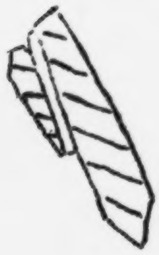
belt



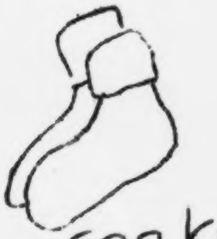
pants
slacks



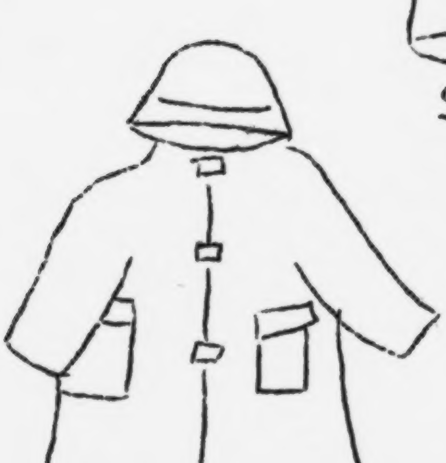
shirt



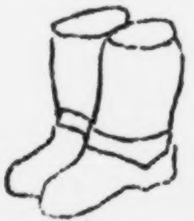
tie



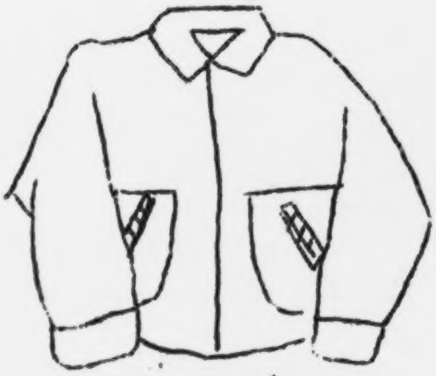
socks



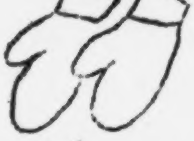
raincoat



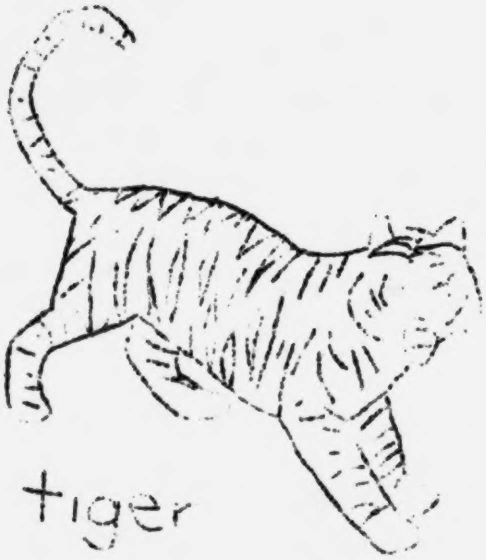
boots



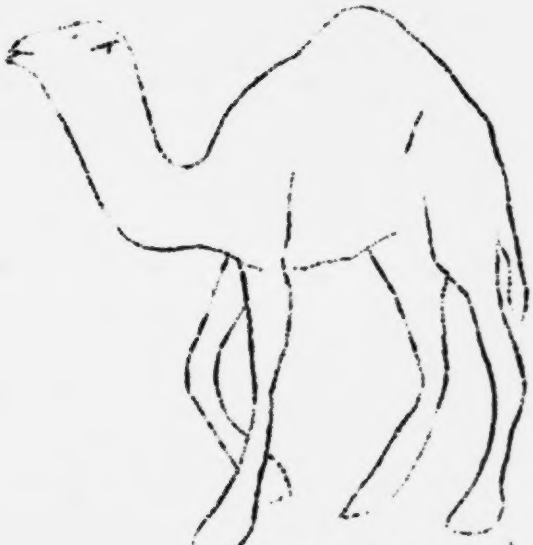
jacket



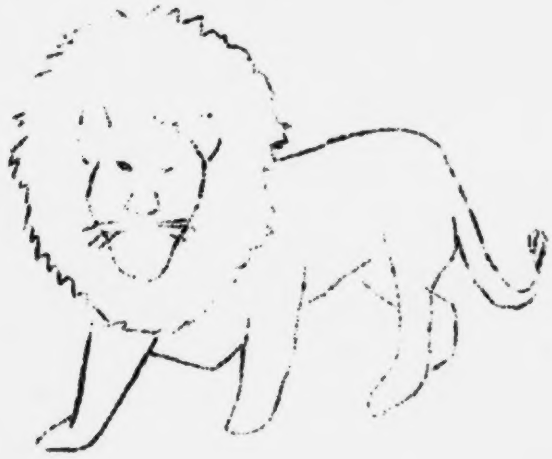
mittens



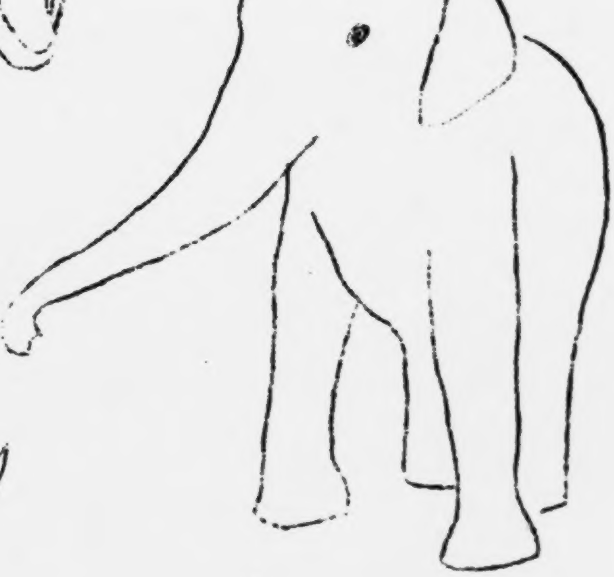
tiger



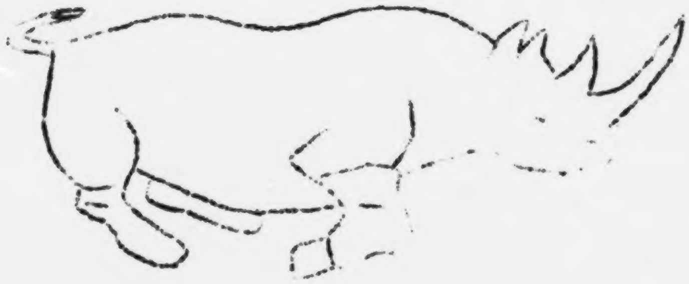
camel



lion



elephant



rhinoceros

POOR ORIGINAL COPY - BEST
AVAILABLE AT TIME FILMED

Structured Group III

Objective

To continue the emphasis on a co-operative interaction between parent and teaching - learning together.

To continue emphasis on the ways in which parents teach, and the manner in which they teach.

To provide an activity for review of color and naming experiences.

To provide the parent with materials and techniques and teach the "what is this not" concept.

To provide parents with "practice" through "teaching" each other.

Game: Candyland

Contents:

Deck of 54 cards (6 each: blue, green, red, and orange, brown, yellow, purple, turquoise, black)

Game board, Candyland

Rules for Candyland:

May be played by 2 or more persons.

Each picks an individual disc (button is fine) to move along the road in Candyland.

The deck is shuffled and placed face down on the table.

Each one in turn draws a card and moves his disc to the next square having the selected color.

The first one to reach the door mat at the candy house wins.

Materials needed for construction

tag board
colored construction paper
paste
scissors
marking pencils
crayons

Some cards may be made with 2 squares pasted on to add additional variety and interest.

Rationale

Identity statements use to discriminate colors, learn progression of movement on the board, taking turns and good sportsmanship

Ask the child to name the color out loud as he turns up the card.

"This is the color yellow"

Mother: "How many squares do you move to get to the yellow one, Tommy?"

Encourage the child to talk as much as possible during the course of the game.

Review

Hold up colored squares or strips.

Mother: What color is this?

Child: This is the color purple.

Go through as many colors as the child knows and introduce new ones.

Continue using books, paper and crayons.

What color is this not?

Put all the child's color strips on the table in a pile. Pick up a strip, say "This is the color green. Let's find out what color this is not." "This is not the color red . . . blue, purple, yellow, orange, black, brown, gray, etc."

This is the color green. Jimmy tell me, what color is this not?

Child: "This is not the color orange" (any color he names other than the one it *is* will be acceptable.)

DRAW AND TELL

Materials needed: Paper and pencils or crayons

Procedure: The adult may give the following directions:

1. Draw a circle that is big.
2. Now draw a circle that is not big.
3. Draw a line that is long.
4. Draw a line that is not long.
5. Draw-These circles are big.
6. Draw-These circles are not big.
7. These lines are long.
8. This line is not long.
9. Have the children repeat the statement after each illustration is drawn.
10. Print the statement under each illustration on the child's paper.

COLORS - SHAPES

Materials needed:

1. Paper for each child
2. Pencil for drawing
3. Miscellaneous cardboard shapes in the center of the table
4. Crayons for coloring

Procedure:

1. Pass out a paper and pencil to each child.
2. Adult: Children, listen carefully to the directions and do exactly as I say.
   --Take a shape from the pile and draw around it. "This is a circle."
   --Now what do you need to do so you can say, "This circle is red?" (Color the circle red.)
   --Take the shapes you need from the pile to draw "These are squares."
   --Now what do you need to do so you can say, "These squares are not red?" (Color one blue and one yellow, for instance.)

   Continue with children demonstrating other shape and color combinations.
   --This triangle is blue and this triangle is yellow.
   --These triangles are green, etc.

(Note: Be sure to give directions slowly enough, and repeat for individuals as they may work at different paces. It might be wise to work along with them with a sample model.)

DIXIE CUPS

Colors-Numbers

Materials needed:

1. Four dixie cups, one red, one yellow, one green, one blue
2. Button

Procedure:

1. Place 4 cups on the table
2. Ask children to close their eyes
3. Hide the button under one cup
4. Each child guesses, "Is it under the red cup?" etc. (He must ask the question, not just point.)
5. The adult lifts each cup till the right one is lifted. The child who guessed correctly gets the next turn.

Variations:

1. The adult may put the button under the red cup, for instance, and then move cups around while children watch. They have to remember that it was under the red cup.
2. Use same color cups, but label them 1st, 2nd, 3rd, 4th, and the children must ask "Is it under the second cup?" etc.

MEMORY GAME

Colors-Numbers

Materials needed:

1. Plastic spoons of different colors (Start with four: red, blue, yellow, green - then add more)

Procedure:

1. The adult shows four spoons. Review colors.
2. Children close eyes, adult hides spoon behind her, saying "What color spoon am I hiding?"
3. Child is encouraged to respond: "You are hiding the red spoon," etc.
4. When child guesses correctly, he may hold the spoon.
5. After all are guessed, increase the number of spoons.
6. Let children take turns hiding the spoon.

Variation:

1. Hide one spoon, two spoons, three spoons. Ask "How many spoons am I hiding?"
2. The child who guesses correctly may have a turn to hide any number he chooses.

PROCEDURE

1. Mother puts up a circle on the flannel board, "This is a circle," and, "These are circles."

   Say it. Child "This is a circle and these are circles."

2. Show me a circle. Show me more than one circle.

3. Continue to do this with other flannel cut-outs.

   This is a square. These are-----

   This is a car. These are-----

4. Remind child that "This is a ----" always means one, and "These are" always means more than one.

Flannel Board Patterns

Geometric shapes, letters, numerals, animal shapes may be presented on the flannel board in a series which you ask the child to reproduce.

A simple story line may be added to heighten interest. Ex.

"These are animals I saw in the woods the other day:
a white rabbit
a blue bird
a skunk
a butterfly.

"Here is a clothesline. I am hanging up my clothes.
Here is a :
pair of soxs
a shirt
a pair of pants
a dress
a hat.

"Here are the letters that make up your name. Here is a:

N, A, N, C, Y

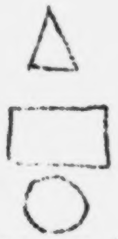
CONTINUED

FLANNEL BOARD PATTERNS (cont.)

"Here are some numbers:

1 2 3 4 5

"Here is a :



Model: "Now, can you put these on the board the same way mommy did?"

"Good!"

A segmented human form is put on the flannel board- head (nose, eyes, brows, ears), neck, trunk, arms, hands, legs, feet.

Parts of the figure are taken away and the child must tell which part or parts are missing.

Cut out pictures from child's Golden Book, back with flannel. After you tell it to him putting the pictures up sequentially, have hime do it for you and other members of the family.

CATEGORIES

1. Prepare the following flannel cut outs:
    a. ball (toy)
    b. banana (food)
    c. car (vehicle)
    d. chair (furniture)

2. Mother puts each piece on flannel board , as she does she states:
    "This is a ball. A ball is a toy .
    "This is a banana. A banana is a food or a fruit.
    "This is a car. A car is a vehicle.
    "This is a chair. A chair is a piece of furniture.

3. Have the child do the same thing - Mother may help child with the form at first.

4. As a supplementary activity for a rainy afternoon mother may want to give the child some magazines and say -

    " Johnny, you look for pictures of toys, food, vehicles, and furniture. After you find a picture, cut it out and we'll put flannel on the back of it and then you will have all sorts of different groups of things to play with."

Identity
Categories

SIMILARITIES

Materials needed:

Flannel board figures of:

- orange
- red ball
- shirt, black and white stripes
- pair of brown pants
- set of yellow blocks
- zebra
- brown monkey
- banana

Procedure:

1. Place all figures in the flannel board.
2. Adult: "We are going to find the things that go together. Millie, will you start with the banana? What do you think goes with that?" (orange) "Why did you choose the orange?" (Because we eat it)
3. Have another child choose ywo objects and tell why they go together. If he falters, ask a cue question, ie. "What do you do with a shirt, pants, ball, blocks,etc.?" (You wear the shirt) Is there something else that you wear? (Yes, you wear the pants)

Possible combinations:

Colors:
- pants and monkey
- zebra and shirt (stripes)
- banana and blocks

Shapes:
- ball and orange

Animals; Zebra and monkey

Clothing: shirt and pants

Polars
(big)

SHAPES

Materials needed:

Flannel shapes (circles,squares, triangles) cut into two sizes- big and not big.

Procedure:

1. Have a child put up a big circle on the flannel board. Then have him put up a circle that is not big.

2. Repeat with other shapes.

3. Now "Tell me about each shape." If child can't answer, adult should ask "Is this circle big?" -- etc.

I'VE GOT A SECRET

Identity
(Description)

Material needed:

Collection of animal flannel cut-outs. (Do not show at first to children.)

Procedure:

1. The adult makes statements about the object, giving the child a chance to guess after each statement, ie.. "This animal has a long neck. What is it?" (giraffe) "This animal has a very long tail, can swing from tree to tree, etc. What is it?" (monkey)
2. Children report with This is a ________. When a child guesses correctly, then he can put the animal on the flannel board.

Variation: A child might like to try describing an object and letting mother or other members of family guess.

Additional variations: Sounds of animals could be made- children could guess what they are.

RIDDLE GAME WITH KITES

Polars
Colors
Categories

Materials needed:

1. Flannel board
2. Fairly large kites made of brightly- colored felt
3. Small object pictures attached to the back of the kites with paper clips, so they can be changed.

Procedure:

1. Scatter kites on the flannel board
2. First child selects a kite, turns to the group, and describes the picture, such as "My kite has something with wheels. It is red. It goes very fast". (Adult may need to help children with questions at first, such as: "What do you do with it?" Is it something to eat, wear, play with, take you places,etc?" "What about its size, color, shape?"
3. Children may guess after each clue, until one child guesses correctly.
4. The child who guesses correctly chooses the next kite to describe.

Structured Group IV

Objectives

1. To continue the emphasis on the value of parent teaching.
2. To provide the mothers with sufficient time to discuss any specific difficulties they might be having in using the material.
3. To provide review experiences for teaching the "What is this not concept."
4. To assist parents in the construction of the "Go Fishing Game" : that emphasizes labelling and discrimination of colors, objects and categories.

Game: Go Fish

Contents:

Samples of 6 fish

Additional material needed: 1 fishing pole about 2' long, string, magnet on end of string.

Rules for Go Fish

The game may be played in many ways depending on what the particular lesson objective is. The children can fish for those having the same color, same number of objects pictured, same category, or any combination of these criteria.

Materials needed for construction

colored construction paper
pictures of small objects or crayons to draw objects
paste
scissors
paper clips
fishing pole stick
string
magnet

Rationale: Use to discriminate colors, objects, and categories

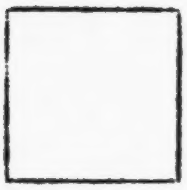
Ask the child to fish for all the orange fish or all the fish that have pictures about animals, or vehicles, or all the fish that have pictures of 2 objects, or all the red fish that have animals on them. Ask the child to identify the fish he has caught. "I have blue fish" or "I have 5 fish with animal pictures."

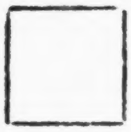
Make 5 red, 5 orange, 5 blue, 5 yellow, 5 green, 5 purple fish

Put pictures of animals on red
furniture on orange
food on blue
clothes on yellow
toys on green
vehicles on purple

On several of the fish put 2 or 3 pictures on them.

Review "What is this Not"





Mother: "This square is not big" (mother colors in little square)
"Say it"

Child: ("This square is not big.)

Mother: "Is this square big? No this square is not big. Is this square big?"

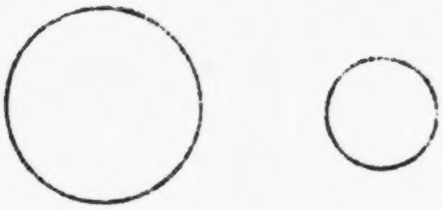
Child: ("No, this square is not big")

Mother: "This square is not what?

Child: ("This square is not big.")

Mother: "What is this square not?"

Child: ("This square is not big.")



Mother: "This is a circle. Say it - - ." (Color in big one)

Child: ("This is a circle")

Mother: "Is this circle big?"

Child: ("Yes, this circle is big.)

Mother: "This circle is what?"

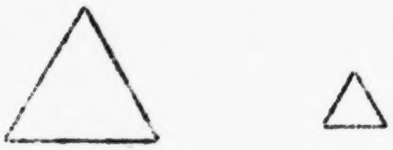
Child: ("This circle is big.")

Mother: "Which circle is big?"

Child: ("This circle is big.")

Mother: ("Tell me about this circle.")

Child: ("This circle is big.")



Mother: "This triangle is not big." (Color in small one.) "Say it!"

Child: ("This triangle is not big.")

Mother: "Is this triangle big?"

Child: ("No this triangle is not big.")

Mother: "This triangle is not what?"

Child: ("This triangle is not big.")

Mother: "Which triangle is not big?"

Child: ("This triangle is not big.")

Mother: "Tell me about this triangle."

Child: ("This triangle is not big.")

Continue using Candy-Land books and other lessons.

APPENDIX C

Workshop

I-IV

Workshop I

INTRODUCTION TO THE PROGRAM

Objectives

To introduce the parents to the staff of the Pre-school program and the other parents.

To acquaint the parents with the Pre-school program procedure, the aims and goals of the program, and the physical facilities of the Center

To set a warm comfortable tone that would encourage continued attendance by the parents.

To establish the basis for an effective home-school partnership by making the parents aware of their role facilitating the success of the Pre-school program and of their child's continued educational development.

WORK SHOP GROUP

Discussion for the Film

I. The child in relation to the materials and equipment in the film.

   A. What kinds of materials and equipment did the children seem to enjoy the most?

   B. Which activities utilized the child's small muscles and which the large muscles?

   C. What kinds of things did you see in the film that you might adapt to use with your child in the home?

II. The child in relation to the teacher:

   A. What examples can you give from the film that would illustrate teacher guidance in a particular play activity?

   B. What forms of discipline does the teacher use?

   C. What forms of approval and disapproval does she use?

   D. Give an example of the child's reaction to the teacher.

   E. Discuss any teacher preparation you thought was interesting.

III. The child in relation to his friends.

   A. Do the children play alone or together more frequently? What might be some reasons for both solitary and cooperative play?

   B. Did you see children learning to share, understand the rights of others, and care of property?

   C. What kinds of language interaction did you observe between the children?

Workshop III - Nutrition

Food is Good

Objectives

To learn which foods need to be eaten regularly, to foster optimum growth and health.

To learn new ways of preparing inexpensive foods that are nutritious, attractive and easy to prepare.

To learn the relationship between good habits of sleep, rest, play and their effect on the enjoyment of good foods and the amounts which are eaten.

To learn that long term nutrition is necessary to successful parenthood and good adult health.

Nutrition - Handouts

Extension Bulletins:

No. 613	Changing Food Habits
E-26	Nutrition for You
500	Counting Calories
	Bone-Up on Meat
	Follow the Food Guide Every Day
	Food Record
	Recipes
	Religious Influence

PARENT PROGRAM

Guiding the Young Child

Dr. Vera Borosage

Objectives

To provide some general principles to consider when disciplining children:

- Preservation of child and adults self respect
- Acceptance of feelings
- Purposes of guidance

To educate the parent in the value of limits:

- Prevention of bodily harm
- For health and well-being
- For social awareness
- For a feeling of security
- To give the child alternatives

To educate parent in terms of positive approaches for setting limits:

- Through speech
- Through action
- Through reasoning

PARENT PROGRAM
Thursday, February 20, 1969

TOPIC

"Guiding The Young Child"

Dr. Vera Borosage, Dept.
Child Department, M.S.U.
will join us.

Enjoy:
- Excitement
- Humor
- New Learnings

See You There - Bring a Friend

Fathers Welcome!

Time________________________

GUIDANCE AND DISCIPLINE

I. What do we mean by Guidance and Discipline.

II. Types of guidance.

III. Guidance in the nursery school implies:

  A. Understanding the purposes of guidance

  B. Knowing how children grow to learn

  C. Being aware of some factors that may cause undesirable behavior

  D. Being flexible

IV. Implementing guidance through:

  A. Physical setting

  B. Balance between sharing experience with and directing the child

  C. Adult's example

  D. Adult's acceptance:

    - of personal feelings

    - of child's feelings

  E. Positive approach in setting limits:

    - through speech

    - through action

    - through reasoning

  F. Preparing the child for changes that will occur

VI. Limits needed

  1. To prevent bodily harm

  2. For health and well-being

  3. For social awareness

  4. For a feeling of security

  5. To give a child alternatives

VII. How learning takes place:

1. Child behaves
2. Adult acts
3. Child responds
4. Child learns

Therefore:

B. When taking action:

    1. Accept feelings of child
    2. Set necessary limits
    3. Provide some release
    4. Encourage and support the child

WORKSHOP - FIRST AID

School Nurse - Policeman
Elkton - Bay Port

Objectives

To provide parents with basic philosophy concerning on the spot first aid for the family.

To provide parents with instructions and techniques to enable them to apply adequate first-aid in the home.

To provide parents with an opportunity to view demonstrations of competent first aid.

To provide parents with an opportunity to practice first-aid techniques.

PARENT MEETING

TOPIC:

THE FAMILY and FIRST-AID

Come meet with Mrs. Holodnick your school nurse, and learn how to meet that on the spot family emergency!

THURSDAY, FEBRUARY 27, 1969

at the

Nursery School at 1:30 - 3:30

SEE YOU THERE !

APPENDIX D

INSTRUMENT REFERENCES

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Michigan State University Tell-A-Story. East Lansing, Michigan: Michigan State University Head Start Evaluation and Research Center, 1969.

Wechsler, David. *Wechsler Preschool and Primary Scale of Intelligence* (WPPSI). New York: Psychological Corporation, Copyright, 1967.

Woolner, Rosestelle. *Preschool Self-Concept Picture Test*. Memphis, Tennessee: R.K.A. Publishing Company, Copyright, 1966.

Ziller, Robert C., Henderson, E.H., and Long, Barbara H. *Children's Self-Social Constructs Test - Preschool Form*. Mimeographed Research Report, 1968.